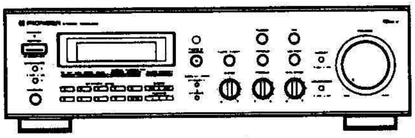
PIONEER
*The Art of Entertainment*

# Service Manual



ORDER NO.
**ARP2886**

## STEREO RECEIVER

# SX-704RDS
# SX-704RDS-G

**THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).**

| Type | Model | | Power Requirement | The voltage can be converted by the following method. |
|---|---|---|---|---|
| | SX-704RDS | SX-704RDS-G | | |
| HE | ○ | - | AC 220-230V | AC 240V, * |
| HEWZ | ○ | - | AC 220-230V | AC 240V, * |
| HEZ | - | ○ | AC 220-230V | AC 240V, * |

* : Alter the wiring of the Power-supply block at the primary winding of Power transformer referring to the "Line Voltage Selection" descrived in Service Manual.

- **For the following : SX-704RDS/HEWZ ; SX-704RDS-G/HEZ, refer to page 28.**

## CONTENTS

1. EXPLODED VIEWS, PACKING AND PARTS LIST .......... 2
2. BLOCK DIAGRAM .......... 5
3. SCHEMATIC AND PCB CONNECTION DIAGRAMS .......... 6
4. PCB PARTS LIST .......... 21
5. ADJUSTMENTS .......... 24
6. IC INFORMATION .......... 26
7. FOR SX-704RDS/HEWZ AND SX-704RDS-G/HEZ .......... 28
8. PANEL FACILITIES .......... 29
9. SPECIFICATIONS .......... 33

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# 1. EXPLODED VIEWS, PACKING AND PARTS LIST

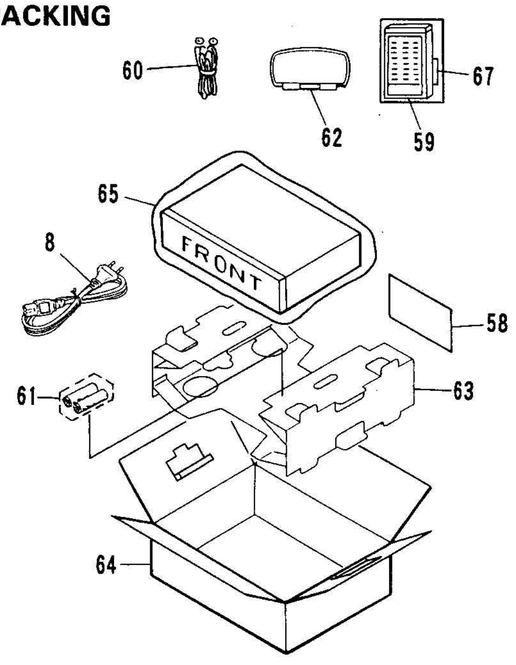
NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by " ⊙ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

## Parts List exterior and Packing (For SX-704RDS/HE)

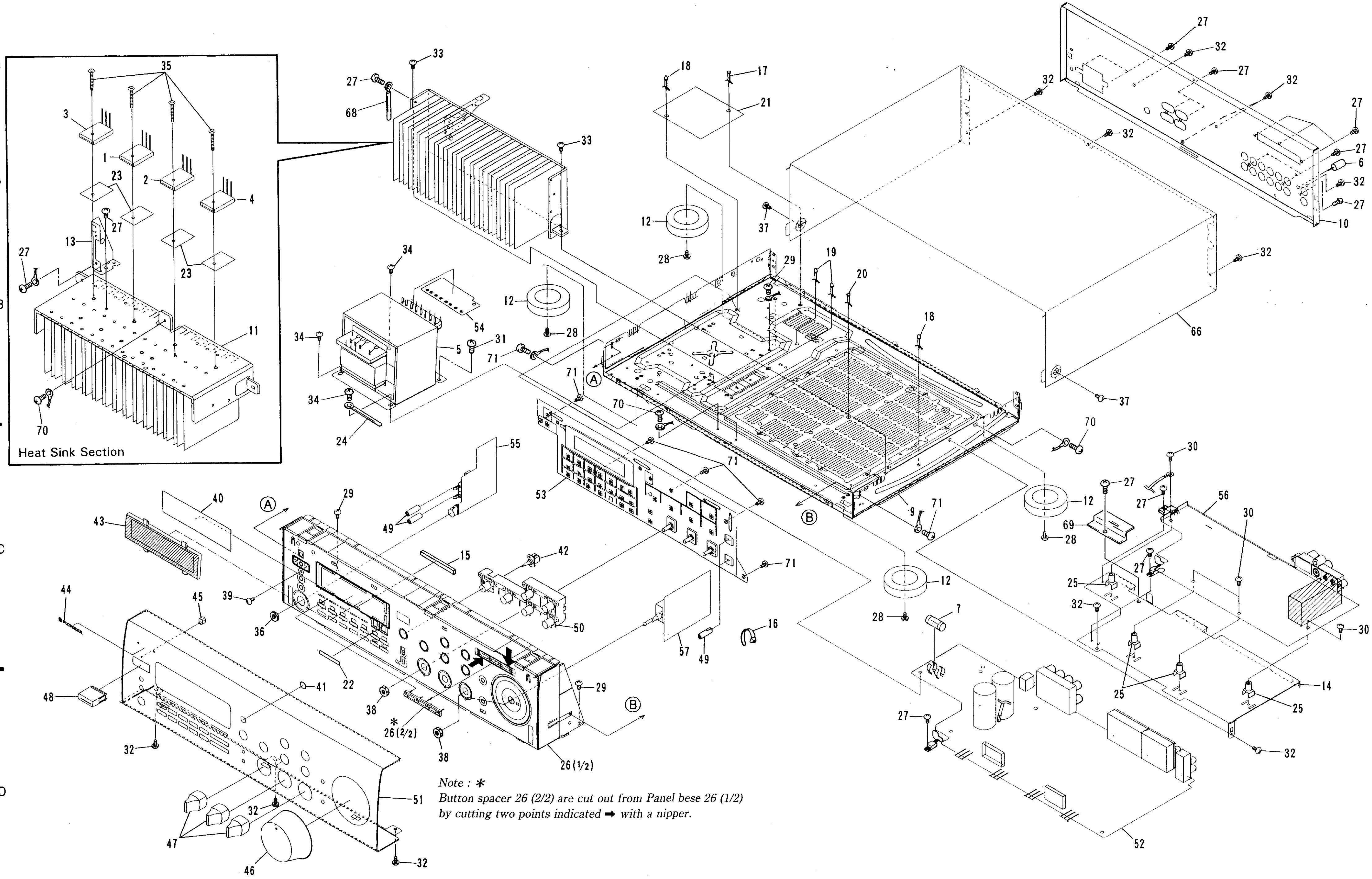
| Mark | No. | Description | Parts No. |
|---|---|---|---|
| ⚠ | 1 | TRANSISTOR | 2SA1264N |
| ⚠ | 2 | TRANSISTOR | 2SA1264N |
| ⚠ | 3 | TRANSISTOR | 2SC3181N |
| ⚠ | 4 | TRANSISTOR | 2SC3181N |
| ⚠ | 5 | TRANSFORMER | ATS1494 |
|  | 6 | TERMINAL SCREW | AKE-031 |
| ⚠ | 7 | FUSE (T2A/250V) | AEK-511 |
| ⚠ | 8 | AC POWER CORD | ADG1127 |
| NSP | 9 | CHASSIS | ANA1489 |
|  | 10 | REAR PANEL(MET) | ANC7226 |
| NSP | 11 | RADIATOR | ANH1266 |
|  | 12 | INSULATOR | PNW1912 |
|  | 13 | HOLDER | ANG1839 |
|  | 14 | SHIELD PLATE | ANK1249 |
|  | 15 | RUBBER | AEB1253 |
|  | 16 | NYLON BINDER | AEC-093 |
| NSP | 17 | PCB SPACER | AEC1121 |
|  | 18 | PCB SUPPORT | AEC1215 |
| NSP | 19 | PCB SUPPORT | AEC1216 |
| NSP | 20 | PCB SUPPORT | AEC1232 |
| NSP | 21 | BARRIER | AEC1241 |
|  | 22 | SHEET | AED1157 |
|  | 23 | SHEET | AEE1014 |
|  | 24 | BINDER | AEP-215 |
| NSP | 25 | PCB MOULD | AMR1525 |
|  | 26 | PANEL BASE(PLS) | AMB7220 |
|  | 27 | SCREW | ABA-298 |
|  | 28 | SCREW (STEEL) 3X8 | ABA1203 |
|  | 29 | SCREW (STEEL) | ABA1011 |
|  | 30 | SCREW | ABA1018 |
|  | 31 | SCREW (STEEL) | ABA1192 |
|  | 32 | SCREW (STEEL) | ABA1048 |
|  | 33 | SCREW (STEEL) | ABA1193 |
|  | 34 | SCREW | ABA1200 |
|  | 35 | SCREW | ABA1082 |
|  | 36 | NUT | ABN-065 |
|  | 37 | SCREW | BBT30P060FZK |
|  | 38 | NUT | NK90FUC |
|  | 39 | SCREW | VMZ30P060FCU |
|  | 40 | FL FILTER | AAK2047 |
|  | 41 | REMOCON WINDOW | AAK2457 |
|  | 42 | BUTTON LENS(PLS) | AAK2472 |
|  | 43 | PANEL(DISPLAY) | AAK2473 |
|  | 44 | NAME PLATE (METAL) | AAM1058 |
|  | 45 | LED LENS | PNW2019 |
|  | 46 | ROTARY KNOBL(PLS) | AAB1343 |
|  | 47 | ROTALY KNOB S(PLS) | AAB1353 |
|  | 48 | POWER BUTTON(PLS) | AAD2421 |
|  | 49 | PUSH BUTTON(PLS) | AAD2423 |
|  | 50 | FUNCTION BUTTON | AAD2448 |
|  | 51 | FRONT PANEL(MET) | ANB7012 |
|  | 52 | AF ASS'Y | AWZ7750 |
|  | 53 | CONTROL ASS'Y | AWZ7751 |
| NSP | 54 | TRANS ASS'Y | AWZ7753 |
| NSP | 55 | SP SWITCH ASS'Y | AWZ7752 |
|  | 56 | TUNER ASS'Y | AWZ7767 |
|  | 57 | MOTOR VR ASS'Y | AWZ7754 |
|  | 58 | OPERATING INSTRUCTIONS (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese) | ARE7041 |
|  | 59 | REMO-CON(CU-SX067) | AXD1361 |
|  | 60 | FM ANTENNA | ADH7001 |
| NSP | 61 | BATTERY(R03,AAA) | AEX-021 |
|  | 62 | LOOP ANTENNA | ATB1005 |
|  | 63 | CARD BOARD PROTECTOR | AHA7065 |
|  | 64 | CARTON | AHD7163 |
|  | 65 | PACKING SHEET | AHG1016 |
|  | 66 | BONNET CASE(MET) | ANE7066 |
|  | 67 | BATTERY LID | PZN1001 |
| NSP | 68 | BINDER | AEF1004 |
|  | 69 | SHIELD PLATE | ANK7014 |
|  | 70 | SCREW | BBZ30P060FMC |
|  | 71 | SCREW | BPZ30P080FMC |

## ● PACKING



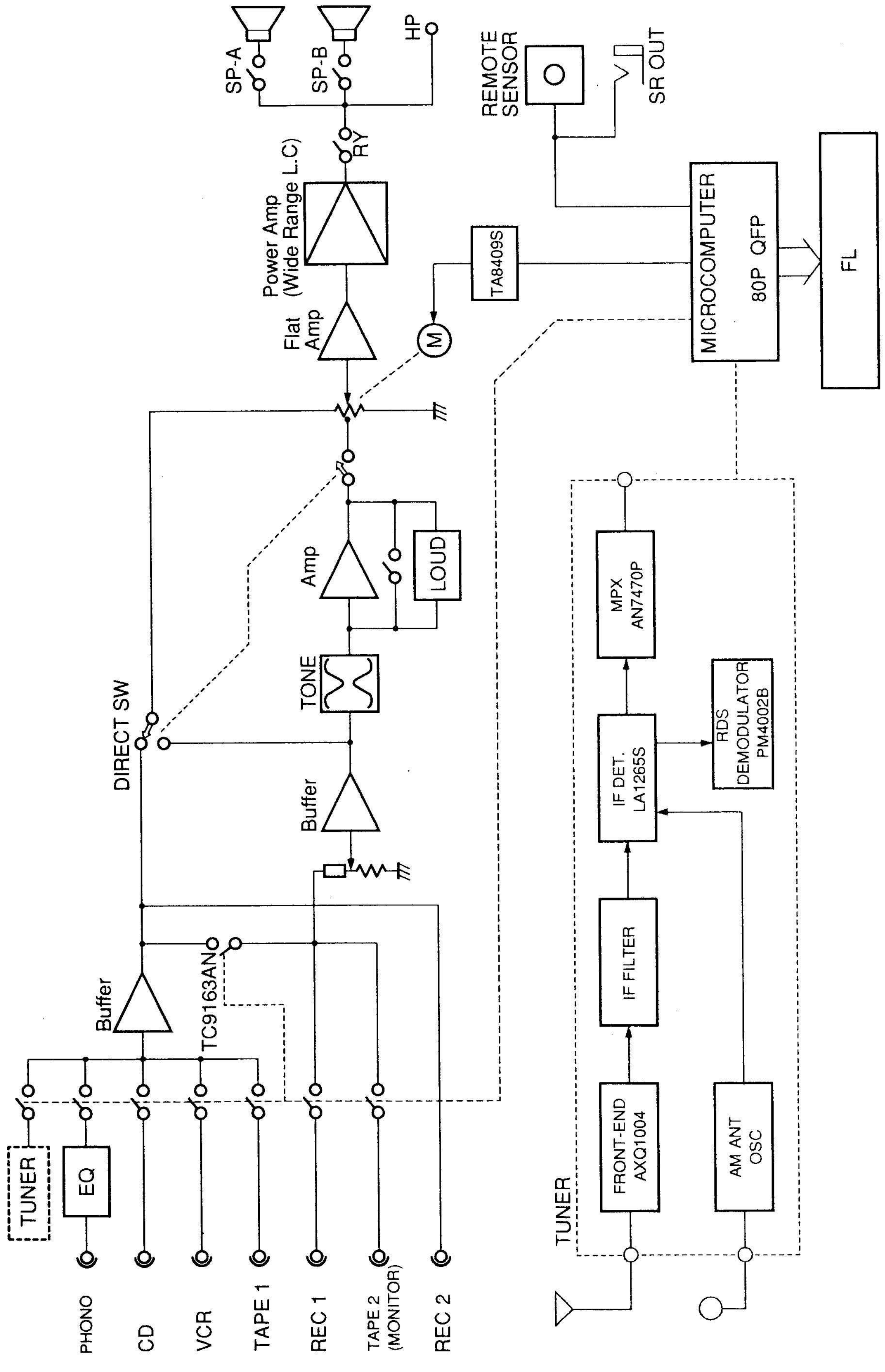
## ● EXTERIOR

NOTE : Screws adjacent to ▼ mark on the product
are used for disassembly.


1
2
3
4
5
6
A
B
C
D
Heat Sink Section
35
3
1
2
4
23
13
27
11
70
33
27
68
34
5
31
71
54
24
18
17
21
12
28
37
29
19
20
66
10
32
6
9
53
55
40
43
44
45
39
36
48
41
22
38
26(2/2)
26(1/2)
47
46
51
15
42
50
49
57
16
7
69
56
30
25
14
52
A
B
*

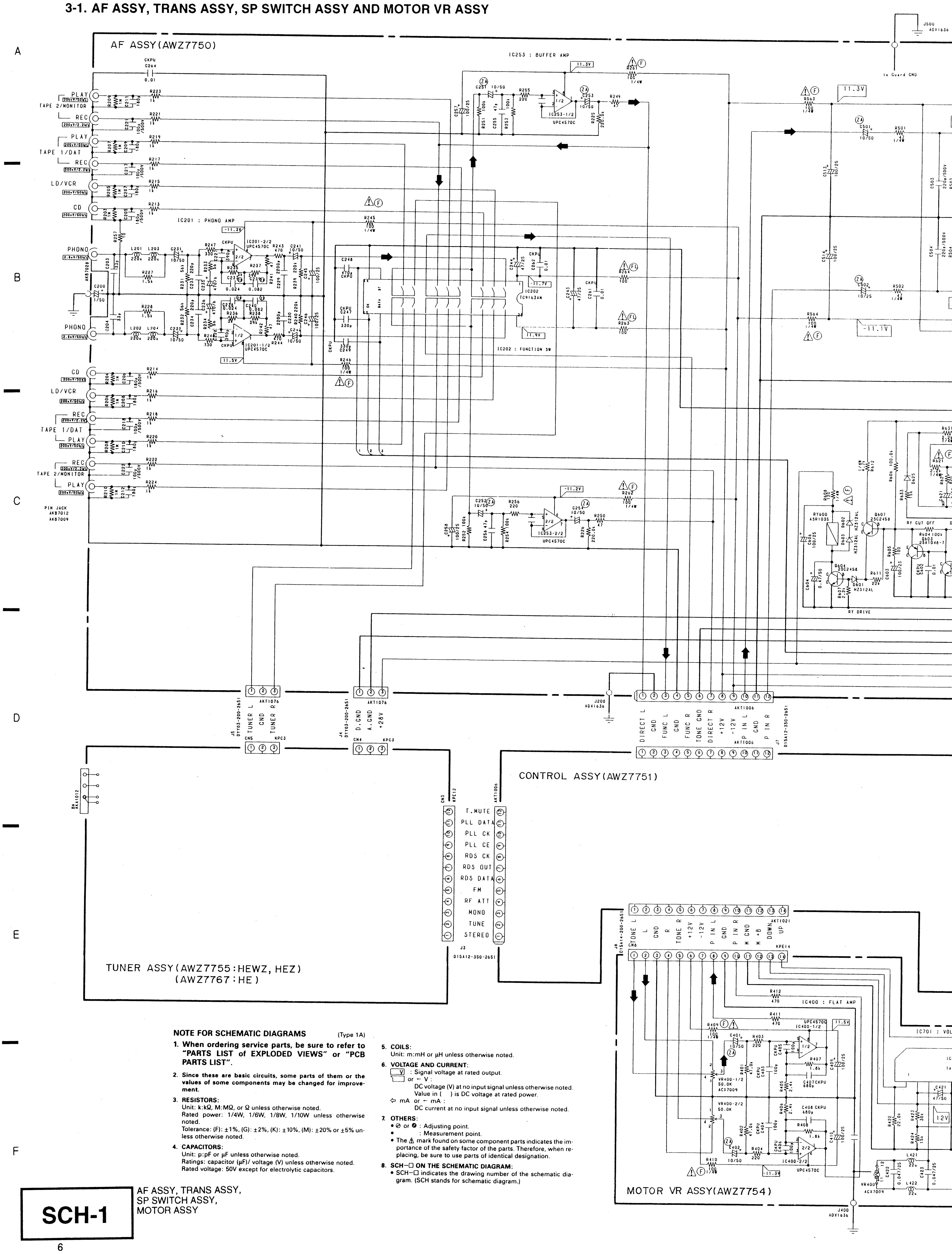
*Note : ∗*
*Button spacer 26 (2/2) are cut out from Panel bese 26 (1/2)*
*by cutting two points indicated ➡ with a nipper.*

## 2. BLOCK DIAGRAM


SP-A
SP-B
HP
RY
REMOTE SENSOR
SR OUT
Power Amp (Wide Range L.C)
Flat Amp
TA8409S
M
MICROCOMPUTER
80P QFP
FL
Amp
LOUD
TONE
DIRECT SW
Buffer
Buffer
TC9163AN
TUNER
EQ
PHONO
CD
VCR
TAPE 1
REC 1
TAPE 2 (MONITOR)
REC 2
MPX AN7470P
RDS DEMODULATOR PM4002B
IF DET. LA1265S
IF FILTER
FRONT-END AXQ1004
AM ANT OSC
TUNER

# 3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

## 3-1. AF ASSY, TRANS ASSY, SP SWITCH ASSY AND MOTOR VR ASSY

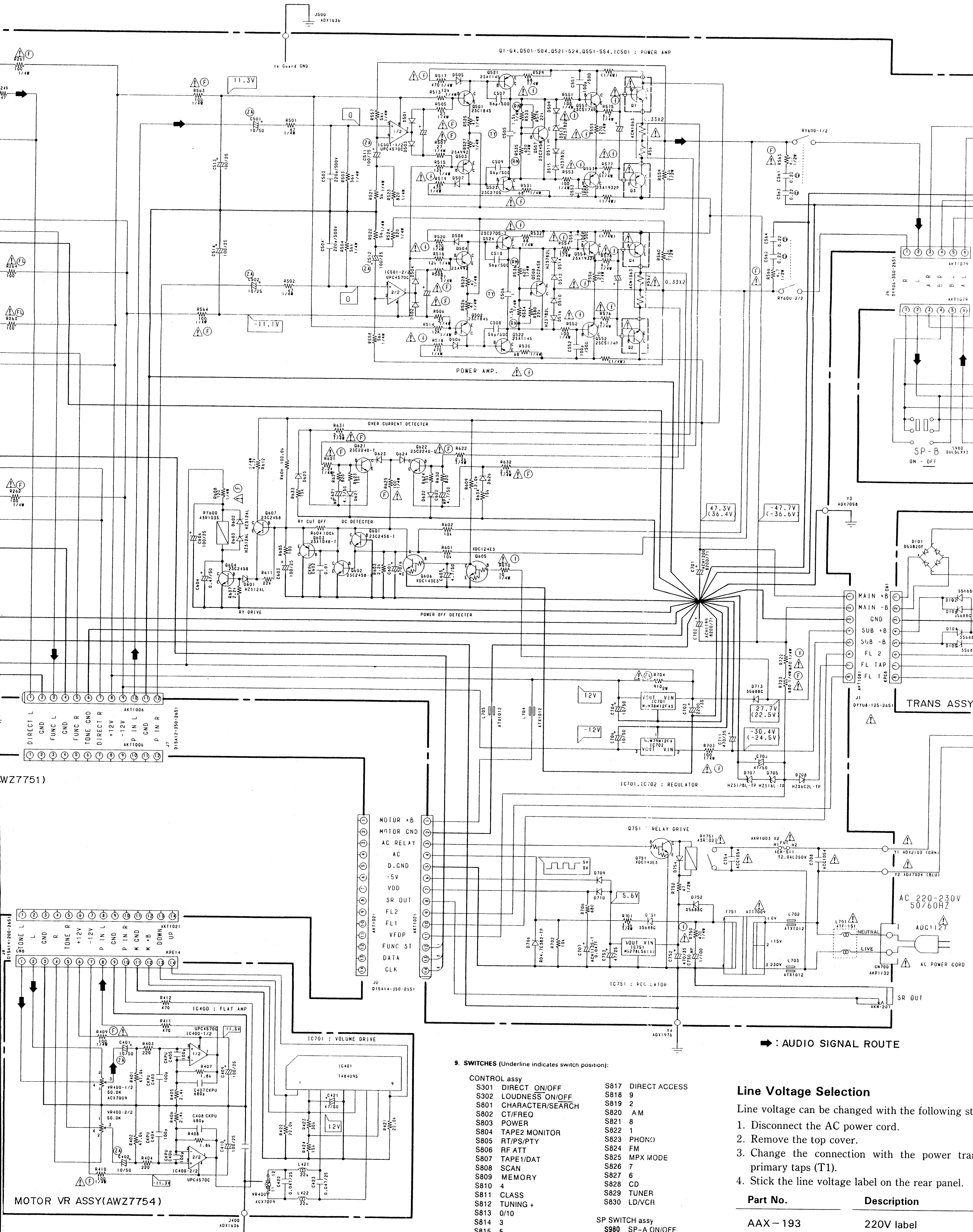

AF ASSY(AWZ7750)
IC253 : BUFFER AMP
IC201 : PHONO AMP
IC202 : FUNCTION SW
IC202 TC9163AN
UPC4570C
PLAY
REC
TAPE 2/MONITOR
TAPE 1/DAT
LD/VCR
CD
PHONO
PIN JACK AKB7012 AKB7009
11.3V
-11.3V
11.5V
-11.2V
-11.7V
11.9V
-11.1V
12V
J500 ADX1636
to Guard GND
RY600 ASR1035
RY CUT OFF
RY DRIVE
J200 ADX1636
AKT1076
AKT1006
DIRECT L
GND
FUNC L
GND
FUNC R
TONE GND
DIRECT R
+12V
-12V
P IN L
GND
P IN R
TUNER L
GND
TUNER R
D.GND
A.GND
+28V
CN5 KPC3
CN4 KPC3
CONTROL ASSY(AWZ7751)
T.MUTE
PLL DATA
PLL CK
PLL CE
RDS CK
RDS OUT
RDS DATA
FM
RF ATT
MONO
TUNE
STEREO
TUNER ASSY(AWZ7755:HEWZ, HEZ)
(AWZ7767:HE)
TONE L
L
GND
R
TONE R
+12V
-12V
P IN L
GND
P IN R
M GND
M +B
DOWN
UP
AKT1021
KPE14
IC400 : FLAT AMP
IC701 : VOL
VR400-1/2 50.0K ACX7009
VR400-2/2 50.0K
MOTOR VR ASSY(AWZ7754)
J400 ADX1636
A
B
C
D
E
F
1
2
3
4
5

**NOTE FOR SCHEMATIC DIAGRAMS** (Type 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   or ← V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ← mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⊘ : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH−□ ON THE SCHEMATIC DIAGRAM:**
   - SCH−□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

**SCH-1**

AF ASSY, TRANS ASSY,
SP SWITCH ASSY,
MOTOR ASSY


J500
ADX1636
to Guard GND
Q1-Q4,Q501-504,Q521-524,Q551-554,IC501 : POWER AMP
11.3V
-11.1V
POWER AMP.
RY600-1/2
RY600-2/2
OVER CURRENT DETECTER
RY CUT OFF
DC DETECTER
RY DRIVE
POWER OFF DETECTER
47.3V
(36.4V)
-47.7V
(-36.6V)
Y3
ADX7058
D101
MAIN +B
MAIN -B
GND
SUB +B
SUB -B
FL 2
FL TAP
FL 1
TRANS ASSY
SP-B
ON - OFF
DIRECT L
GND
FUNC L
GND
FUNC R
TONE GND
DIRECT R
+12V
-12V
P IN L
GND
P IN R
AKT1006
J7
D15A12-350-2651
WZ7751)
12V
-12V
27.7V
(22.5V)
-30.4V
(-24.5V)
IC701,IC702 : REGULATOR
MOTOR +B
MOTOR GND
AC RELAY
AC
D.GND
+5V
VDD
SR OUT
FL2
FL1
VFDP
FUNC ST
DATA
CLK
J2
D15A14-350-2551
Q751 : RELAY DRIVE
5.6V
IC751 : REGULATOR
AC 220-230V
50/60HZ
AC POWER CORD
SR OUT
Y4
ADX1976
TONE L
L
GND
R
TONE R
+12V
-12V
P IN L
GND
P IN R
M GND
M +B
DOWN
UP
IC400 : FLAT AMP
IC701 : VOLUME DRIVE
MOTOR VR ASSY(AWZ7754)
J400
ADX1636

➡ : AUDIO SIGNAL ROUTE

**9. SWITCHES** (Underline indicates switch position):

CONTROL assy

| | |
|---|---|
| S301 | DIRECT ON/OFF |
| S302 | LOUDNESS ON/OFF |
| S801 | CHARACTER/SEARCH |
| S802 | CT/FREQ |
| S803 | POWER |
| S804 | TAPE2 MONITOR |
| S805 | RT/PS/PTY |
| S806 | RF ATT |
| S807 | TAPE1/DAT |
| S808 | SCAN |
| S809 | MEMORY |
| S810 | 4 |
| S811 | CLASS |
| S812 | TUNING + |
| S813 | 0/10 |
| S814 | 3 |
| S815 | 5 |
| S816 | TUNING - |
| S817 | DIRECT ACCESS |
| S818 | 9 |
| S819 | 2 |
| S820 | AM |
| S821 | 8 |
| S822 | 1 |
| S823 | PHONO |
| S824 | FM |
| S825 | MPX MODE |
| S826 | 7 |
| S827 | 6 |
| S828 | CD |
| S829 | TUNER |
| S830 | LD/VCR |

SP SWITCH assy

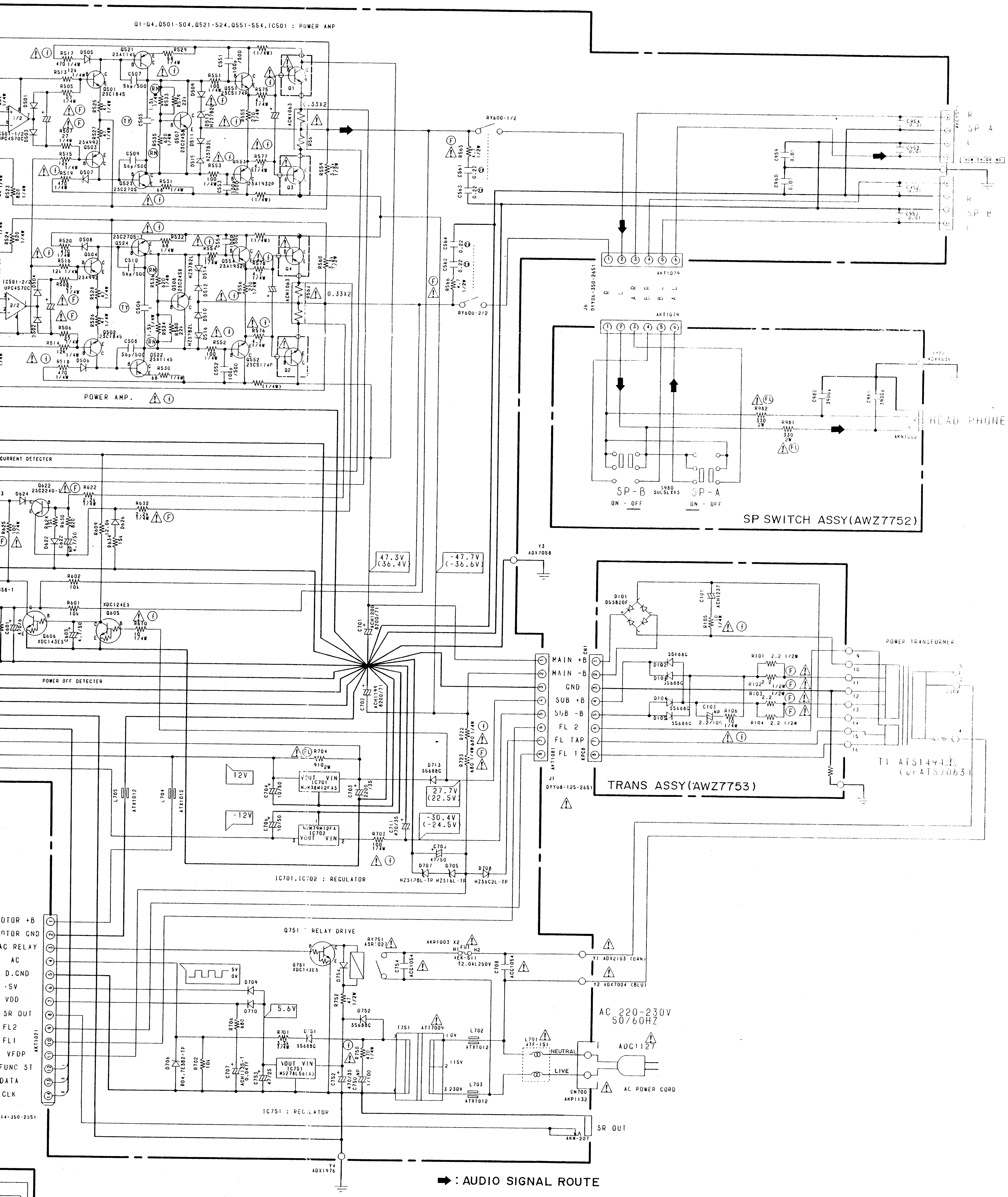
| | |
|---|---|
| S980 | SP-A ON/OFF<br>SP-B ON/OFF |

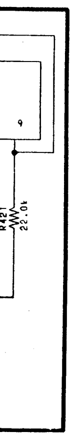
## Line Voltage Selection

Line voltage can be changed with the following st

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection with the power tra primary taps (T1).
4. Stick the line voltage label on the rear panel.

| Part No. | Description |
|---|---|
| AAX−193 | 220V label |
| AAX−192 | 240V label |


Q1-Q4, Q501-504, Q521-524, Q551-554, IC501 : POWER AMP
POWER AMP.
CURRENT DETECTER
POWER OFF DETECTER
IC701, IC702 : REGULATOR
Q751 : RELAY DRIVE
IC751 : REGULATOR
RY600-1/2
RY600-2/2
SP A
SP B
HEAD PHONE
SP-B
SP-A
ON - OFF
SP SWITCH ASSY(AWZ7752)
TRANS ASSY(AWZ7753)
POWER TRANSFORMER
T1 ATS1494-A (or ATS1063)
MAIN +B
MAIN -B
GND
SUB +B
SUB -B
FL 2
FL TAP
FL 1
47.3V (36.4V)
-47.7V (-36.6V)
27.7V (22.5V)
-30.4V (-24.5V)
12V
-12V
5.6V
5V
0V
AC 220-230V 50/60HZ
AC POWER CORD
NEUTRAL
LIVE
SR OUT
MOTOR +B
MOTOR GND
AC RELAY
AC
D.GND
+5V
VDD
SR OUT
FL2
FL1
VFDP
FUNC ST
DATA
CLK
Y1 ADX2103 (ORN)
Y2 ADX7004 (BLU)
Y3 ADX7058
Y4 ADX1976
ADG1127
AKP1132
AKN-207
B
C
D
E
F



➡ : AUDIO SIGNAL ROUTE

**9. SWITCHES** (Underline indicates switch position):

CONTROL assy

| | |
|---|---|
| S301 | DIRECT ON/OFF |
| S302 | LOUDNESS ON/OFF |
| S801 | CHARACTER/SEARCH |
| S802 | CT/FREQ |
| S803 | POWER |
| S804 | TAPE2 MONITOR |
| S805 | RT/PS/PTY |
| S806 | RF ATT |
| S807 | TAPE1/DAT |
| S808 | SCAN |
| S809 | MEMORY |
| S810 | 4 |
| S811 | CLASS |
| S812 | TUNING + |
| S813 | 0/10 |
| S814 | 3 |
| S815 | 5 |
| S816 | TUNING - |
| S817 | DIRECT ACCESS |
| S818 | 9 |
| S819 | 2 |
| S820 | AM |
| S821 | 8 |
| S822 | 1 |
| S823 | PHONO |
| S824 | FM |
| S825 | MPX MODE |
| S826 | 7 |
| S827 | 6 |
| S828 | CD |
| S829 | TUNER |
| S830 | LD/VCR |

SP SWITCH assy

| | |
|---|---|
| S980 | SP-A ON/OFF<br>SP-B ON/OFF |

## Line Voltage Selection

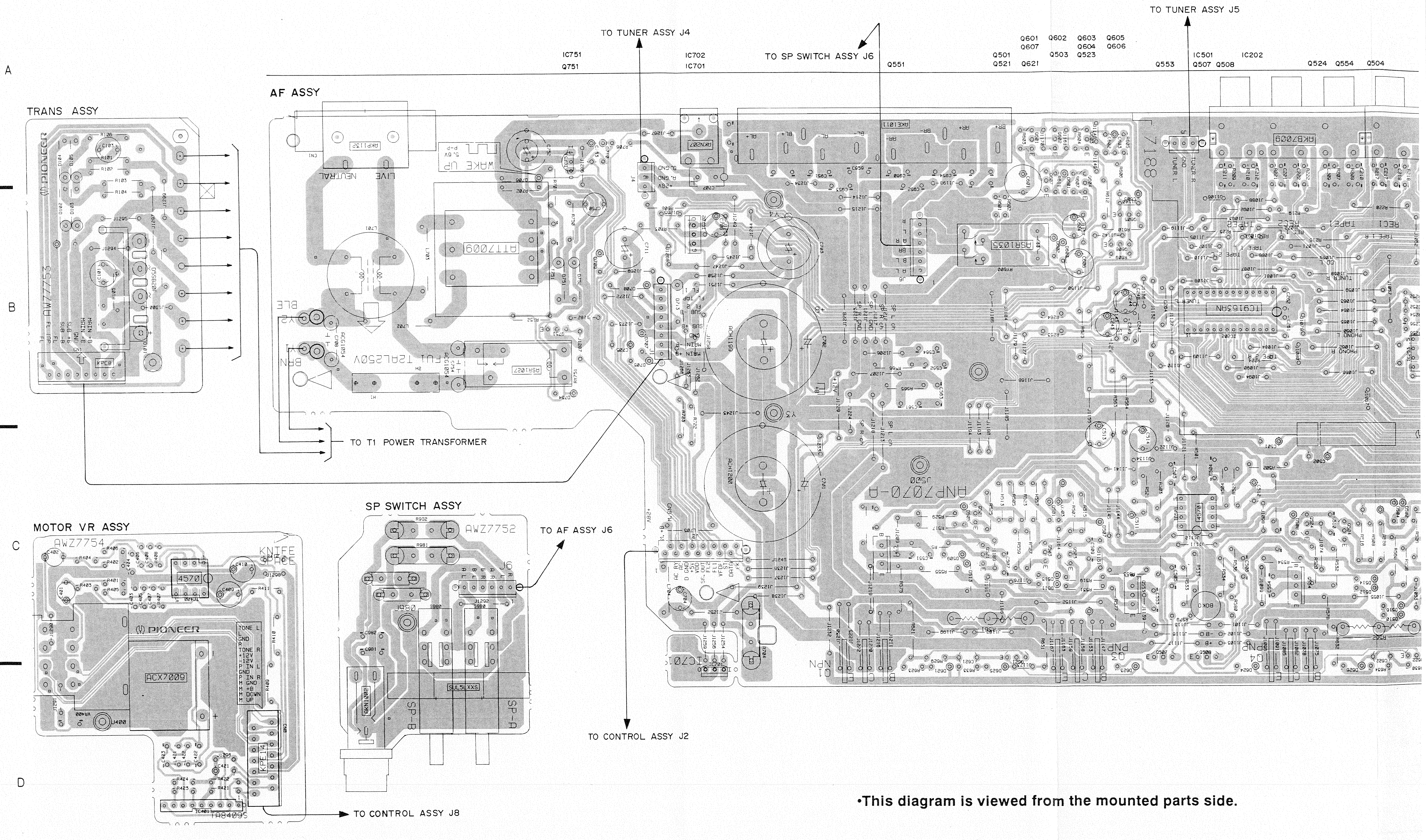
Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection with the power transformer primary taps (T1).
4. Stick the line voltage label on the rear panel.

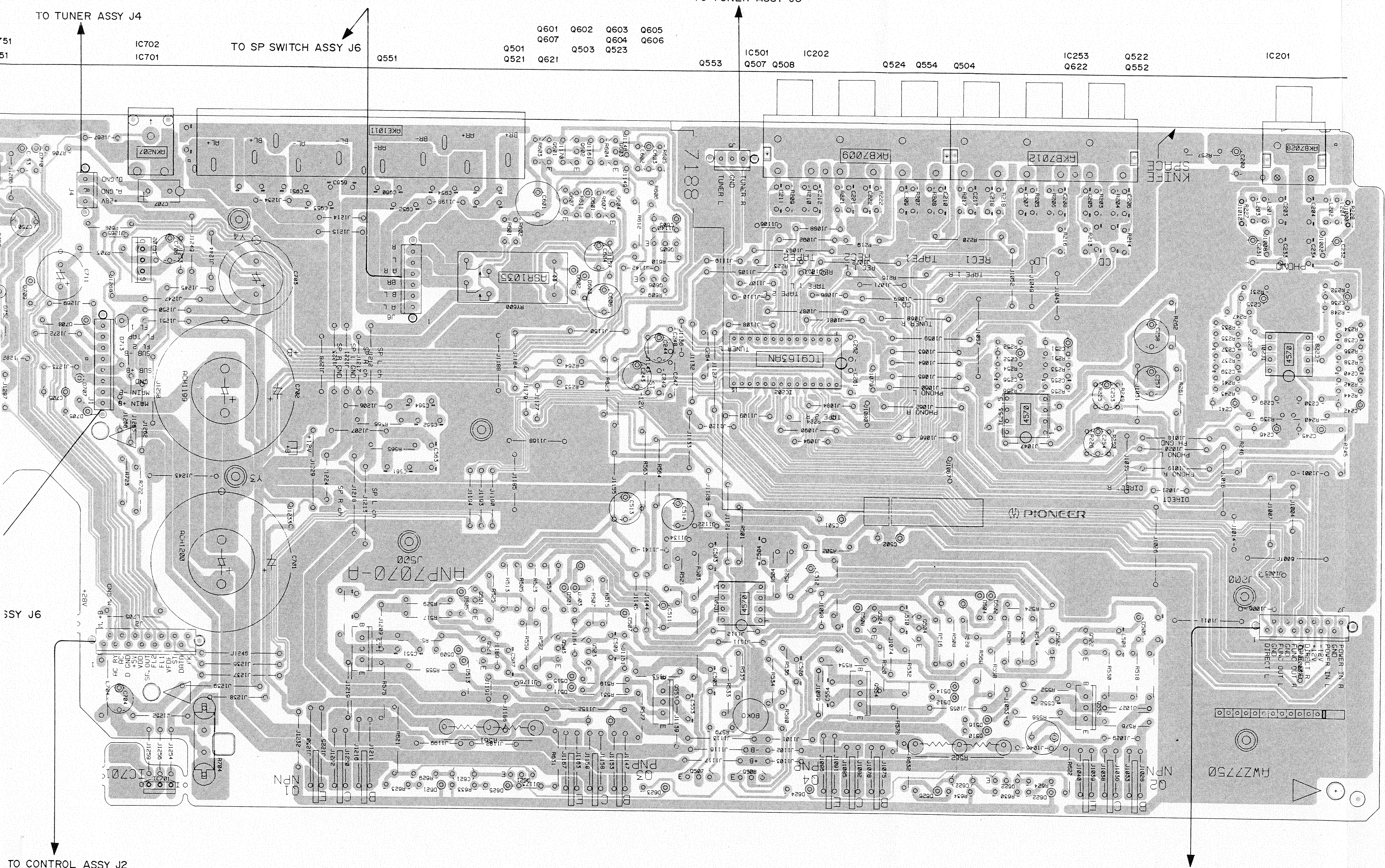
| Part No. | Description |
|---|---|
| AAX−193 | 220V label |
| AAX−192 | 240V label |

AF ASSY, TRANS ASSY,
SP SWITCH ASSY,
MOTOR ASSY

**SCH-1**


TO TUNER ASSY J4
TO SP SWITCH ASSY J6
TO TUNER ASSY J5
IC751
Q751
IC702
IC701
Q551
Q501
Q521
Q601
Q607
Q621
Q602
Q503
Q603
Q604
Q523
Q605
Q606
Q553
IC501
Q507
Q508
IC202
Q524
Q554
Q504
AF ASSY
TRANS ASSY
AWZ7753
AKP1132
ATT7009
AKR1011
AKR1207
ASR1035
ASR1027
AKB7009
LC9153AN
ACH1199
ACH1200
ANP7070-A
TO T1 POWER TRANSFORMER
MOTOR VR ASSY
AWZ7754
4570
ACX7009
KPE14
TA8409S
SP SWITCH ASSY
AWZ7752
J6
AKN1002
SP-B
SP-A
TO AF ASSY J6
TO CONTROL ASSY J2
TO CONTROL ASSY J8
1
2
3
4
5
6
A
B
C
D

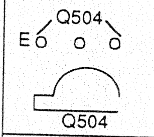
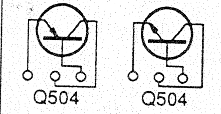
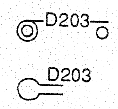
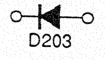
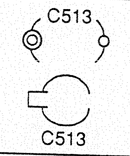
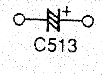
•This diagram is viewed from the mounted parts side.


TO TUNER ASSY J4
IC702
IC701
TO SP SWITCH ASSY J6
Q551
Q501
Q521
Q601
Q607
Q621
Q602
Q503
Q603
Q604
Q523
Q605
Q606
Q553
TO TUNER ASSY J5
IC501
Q507
Q508
IC202
Q524
Q554
Q504
IC253
Q622
Q522
Q552
IC201
SSY J6
ANP7070-A
AWZ7750
TO CONTROL ASSY J2
TO CONTROL ASSY J7

•This diagram is viewed from the mounted parts side.

## NOTE FOR PCB DIAGRAMS:

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

| Symbol in PCB Diagrams | Symbol in Schematic Diagrams | Part Name |
|---|---|---|
|  |  | Transistor |
|  |  | Diode |
|  |  | Capacitor (Polarized) |

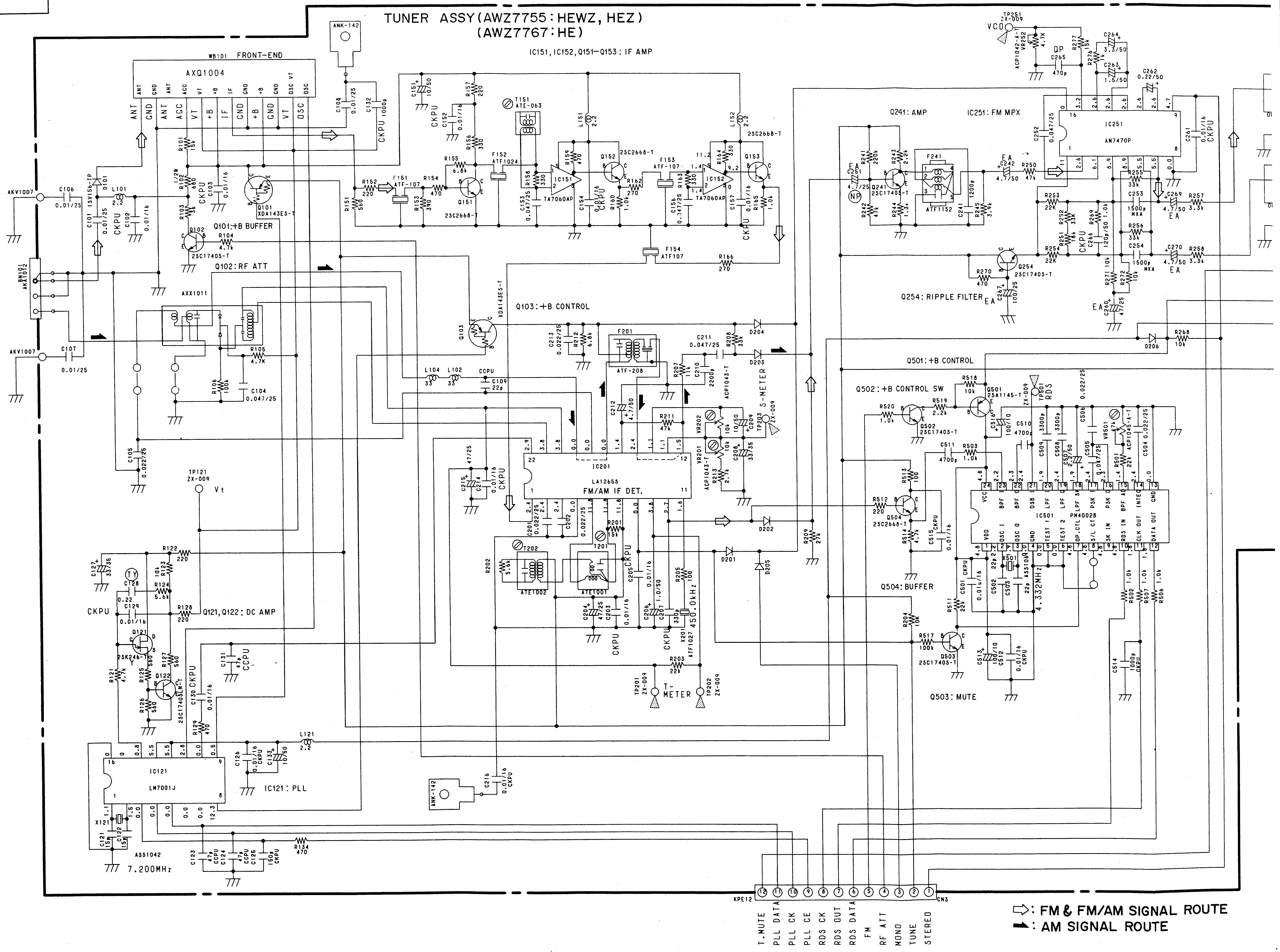
3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.
6. The parts mounted on each PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

Others

| P.C.B. pattern diagram indication | Part Name |
|---|---|
| IC | IC |
| S | Switch |
| RY | Relay |
| L | Coil |
| F | Filter |
| VR | Variable resistor or Semi-fixed resistor |

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

## 3-2. TUNER ASSY

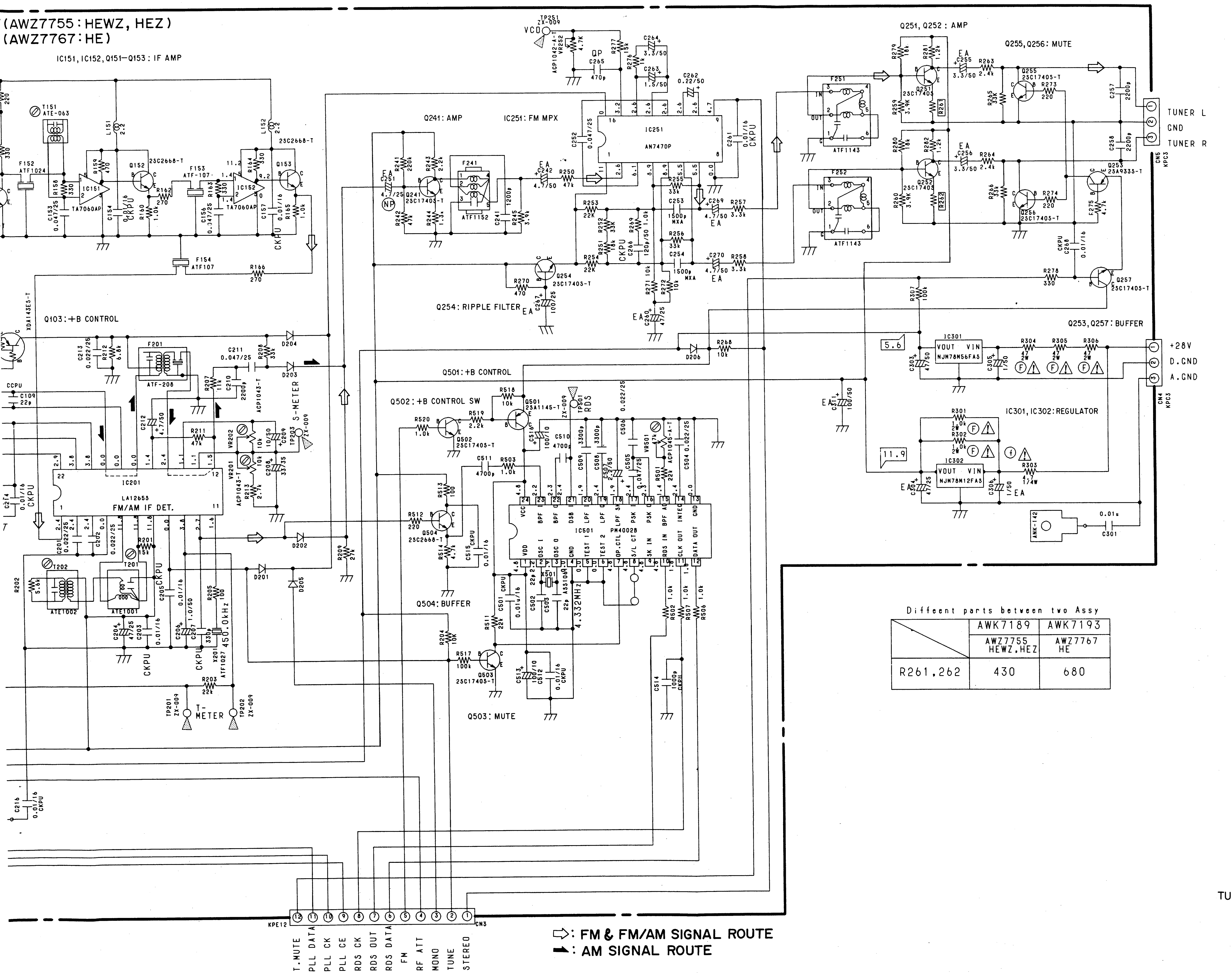

TUNER ASSY (AWZ7755 : HEWZ, HEZ)
(AWZ7767 : HE)
IC151, IC152, Q151–Q153 : IF AMP
WB101 FRONT-END
AXQ1004
ANT GND ANT ACC VT +B IF GND +B GND VT OSC
ANK-142
AKV1007
BN101 AKX1012
Q101 : +B BUFFER
Q101 XDA143ES-T
Q102 : RF ATT
Q102 2SC1740S-T
AXX1011
Q103 : +B CONTROL
Q103 XDA143ES-T
T151 ATE-063
IC151 TA7060AP
IC152 TA7060AP
Q151 2SC2668-T
Q152 2SC2668-T
Q153 2SC2668-T
F151 ATF-107
F152 ATF1024
F153 ATF-107
F154 ATF107
F201 ATF-208
IC201 LA1265S FM/AM IF DET.
T201 ATE1001
T202 ATE1002
X201 ATF1027 450.0kHz
S-METER
T-METER
TP201 ZX-009
TP202 ZX-009
TP203 ZX-009
TP121 ZX-009 Vt
Q121, Q122 : DC AMP
Q121 2SK246-Y
Q122 2SC1740S-T
IC121 LM7001J
IC121 : PLL
X121 ASS1042 7.200MHz
Q241 : AMP
Q241 2SC1740S-T
F241 ATF1152
IC251 : FM MPX
IC251 AN7470P
VR252 ACP1042-A-T
TP251 ZX-009 VCO
QP
Q254 : RIPPLE FILTER
Q254 2SC1740S-T
Q501 : +B CONTROL
Q501 2SA1145-T
Q502 : +B CONTROL SW
Q502 2SC1740S-T
Q503 : MUTE
Q503 2SC1740S-T
Q504 : BUFFER
Q504 2SC2668-T
IC501 PM4002B
X501 ASS1069 4.332MHz
TP501 ZX-009 RDS
VR201 ACP1043-T
VR202 ACP1043-T
VR501 ACP1043-T
D101 1SV156-TP
D201 D202 D203 D204 D205 D206
KPE12
CN3
T.MUTE
PLL DATA
PLL CK
PLL CE
RDS CK
RDS OUT
RDS DATA
FM
RF ATT
MONO
TUNE
STEREO
CKPU
CCPU
EA
NP

⇨ : FM & FM/AM SIGNAL ROUTE

➡ : AM SIGNAL ROUTE

**SCH-2**

TUNER ASSY


(AWZ7755:HEWZ, HEZ)
(AWZ7767:HE)
IC151, IC152, Q151–Q153 : IF AMP
Q241: AMP
IC251: FM MPX
Q251, Q252 : AMP
Q255, Q256: MUTE
Q254: RIPPLE FILTER
Q253, Q257: BUFFER
Q103: +B CONTROL
Q501: +B CONTROL
Q502: +B CONTROL SW
IC301, IC302: REGULATOR
Q504: BUFFER
Q503: MUTE
IC201 LA1265S FM/AM IF DET.
IC251 AN7470P
IC501 PM4002B
IC301 NJM78N56FA5
IC302 NJM78M12FA5
S-METER
T-METER
RDS
VCO
TUNER L
GND
TUNER R
+28V
D.GND
A.GND
CN5 KPC3
CN4 KPC3
KPE12
CN3
T.MUTE
PLL DATA
PLL CK
PLL CE
RDS CK
RDS OUT
RDS DATA
FM
RF ATT
MONO
TUNE
STEREO
5.6
11.9
4.332MHz
450.0kHz

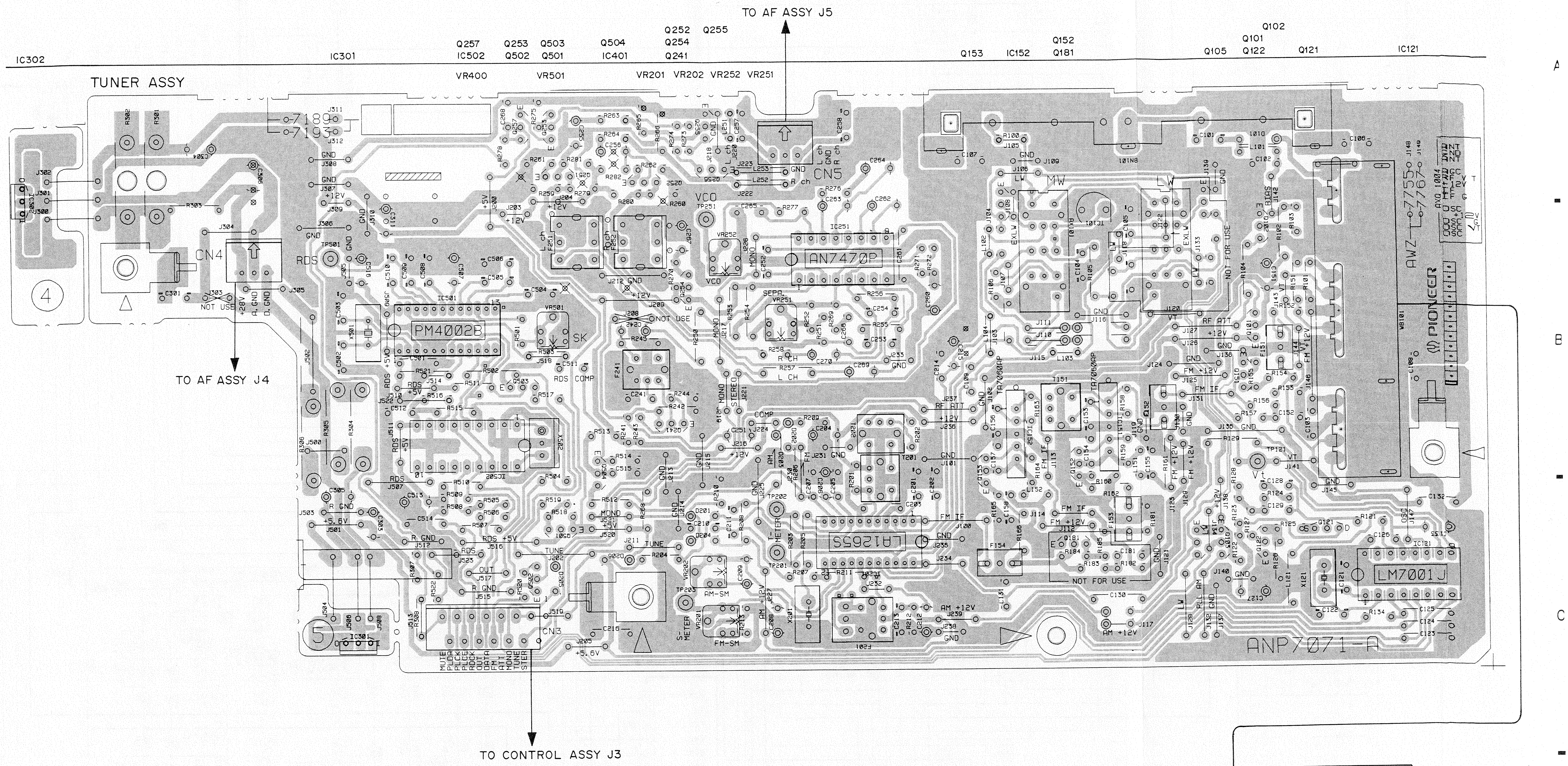
Diffeent parts between two Assy

| | AWK7189 | AWK7193 |
|---|---|---|
| | AWZ7755 HEWZ, HEZ | AWZ7767 HE |
| R261, 262 | 430 | 680 |

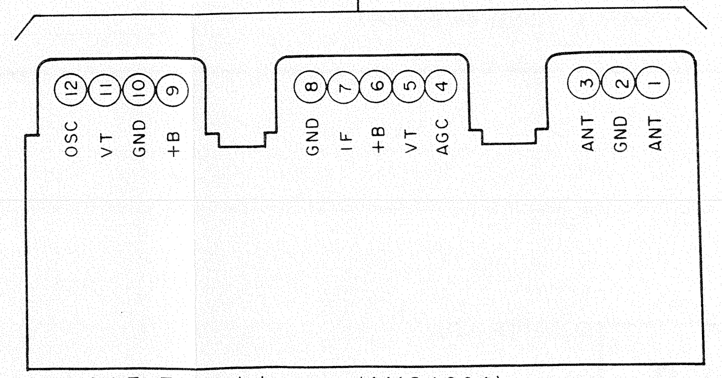
⇨: FM & FM/AM SIGNAL ROUTE
➡: AM SIGNAL ROUTE

TUNER ASSY

**SCH-2**

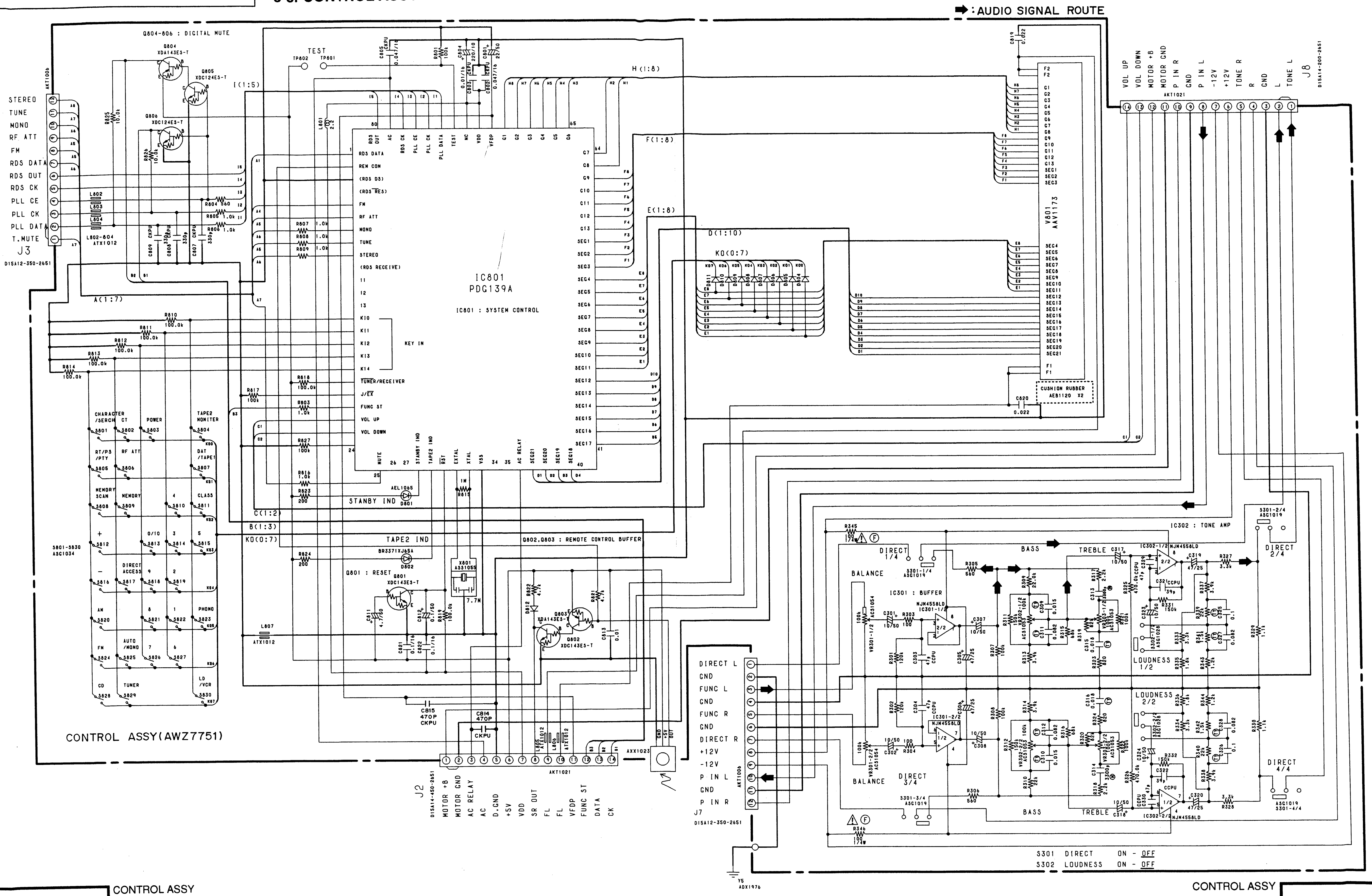

TO AF ASSY J5
Q257 IC502 VR400
Q253 Q502
Q503 Q501 VR501
Q504 IC401
Q252 Q254 Q241 VR201 VR202 VR252 VR251
Q255
Q153
IC152
Q152 Q181
Q105
Q102 Q101 Q122
Q121
IC121
IC302
IC301
TUNER ASSY
CN4
CN5
CN3
PM4002B
AN7470P
LA1265S
LM7001J
TA7060AP
ANP7071-A
PIONEER
AWZ-7755 -7767
MW
LW
VCO
NOT USE
NOT FOR USE
TO AF ASSY J4
TO CONTROL ASSY J3

•This diagram is viewed from the mounted parts side.


12 OSC
11 VT
10 GND
9 +B
8 GND
7 IF
6 +B
5 VT
4 AGC
3 ANT
2 GND
1 ANT

4 serial F. E. module assy (AXQ1004)

## 3-3. CONTROL ASSY

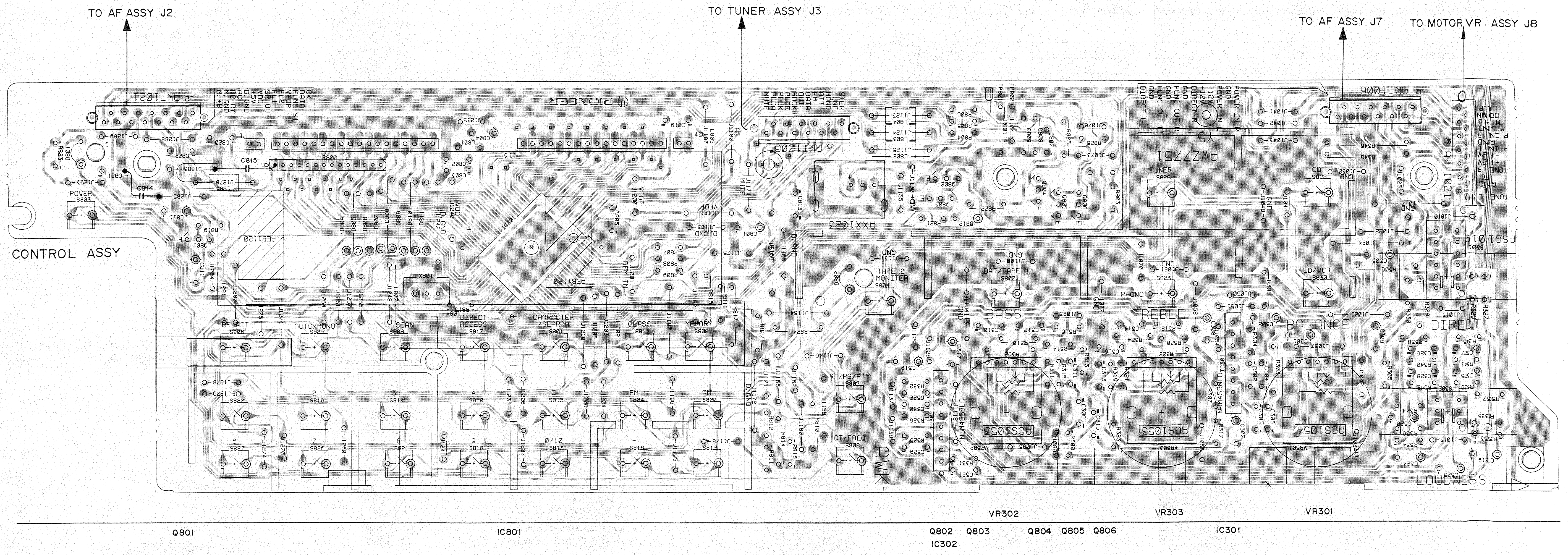

➡: AUDIO SIGNAL ROUTE
A
B
C
D
Q804-806 : DIGITAL MUTE
Q804 XDA143ES-T
Q805 XDC124ES-T
Q806 XDC124ES-T
TEST
TP802
TP601
STEREO
TUNE
MONO
RF ATT
FM
RDS DATA
RDS OUT
RDS CK
PLL CE
PLL CK
PLL DATA
T.MUTE
J3
D15A12-350-2651
AKT1006
L802-804 ATX1012
IC801
PDG139A
IC801 : SYSTEM CONTROL
KEY IN
STANBY IND
D801 AEL1065
H(1:8)
F(1:8)
E(1:8)
D(1:10)
K0(0:7)
I(1:5)
A(1:7)
C(1:2)
B(1:3)
K0(0:7)
V801
AAV1173
CUSHION RUBBER AEB1120 X2
C820 0.022
C819 0.022
S801-S830 ASG1034
CHARACTER /SERCH
CT
POWER
TAPE2 MONITER
RT/PS /PTY
RF ATT
DAT /TAPE1
MEMORY SCAN
MEMORY
CLASS
DIRECT ACCESS
PHONO
AM
AUTO /MONO
FM
CD
TUNER
LD /VCR
TAPE2 IND
BR3371XJ65A D802
Q801 : RESET
Q801 XDC143ES-T
X801 ASS1055 7.7M
Q802,Q803 : REMOTE CONTROL BUFFER
Q803 XDA143ES-T
Q802 XDC143ES-T
L807 ATX1012
C815 470P CKPU
C814 470P CKPU
CONTROL ASSY(AWZ7751)
J2
D15A14-450-2651
AKT1021
MOTOR +B
MOTOR GND
AC RELAY
AC
D.GND
+5V
VDD
SR OUT
FL
FL
VFDP
FUNC ST
DATA
CK
AXX1023
GND
+5V
OUT
VOL UP
VOL DOWN
MOTOR +B
MOTOR GND
P IN R
GND
P IN L
-12V
+12V
TONE R
R
GND
L
TONE L
J8
D15A14-200-2651
DIRECT L
GND
FUNC L
GND
FUNC R
GND
DIRECT R
+12V
-12V
P IN L
GND
P IN R
J7
D15A12-350-2651
Y5 ADX1976
IC301 : BUFFER
NJM4558LD
IC302 : TONE AMP
NJM4558LD
DIRECT 1/4
DIRECT 2/4
DIRECT 3/4
DIRECT 4/4
S301-1/4 ASG1019
S301-2/4 ASG1019
S301-3/4 ASG1019
S301-4/4 ASG1019
BALANCE
VR301-1/2 ACS1054
VR301-2/2 ACS1054
BASS
TREBLE
LOUDNESS 1/2
LOUDNESS 2/2
S302-1/2 ASG1026
S302-2/2 ASG1026
R345 100 1/4W
R346 100 1/4W
S301 DIRECT ON - OFF
S302 LOUDNESS ON - OFF

CONTROL ASSY

**SCH-3**

CONTROL ASSY

**SCH-3**


TO AF ASSY J2
TO TUNER ASSY J3
TO AF ASSY J7
TO MOTOR VR ASSY J8
CONTROL ASSY
POWER
S803
PIONEER
RF ATT
AUTO/MONO
SCAN
DIRECT ACCESS
CHARACTER /SEARCH
CLASS
MEMORY
FM
AM
RT/PS/PTY
CT/FREQ
TAPE 2 MONITER
DAT/TAPE 1
TUNER
CD
LD/VCR
PHONO
BASS
TREBLE
BALANCE
DIRECT
LOUDNESS
ACS1053
ACS1054
AWZ7751
AXX1023
REB1120
VR302
VR303
VR301
Q801
IC801
Q802
IC302
Q803
Q804
Q805
Q806
IC301

•This diagram is viewed from the mounted parts side.

# 4. PCB PARTS LIST

## (FOR SX-704RDS/HE)

*NOTES:*

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The " ⚠ " mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ◉ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohms and 47k ohms (Tolerance is shown by J = 5%, and K =10%).*

$560\Omega \rightarrow 56 \times 10^{1} \rightarrow 561$ ---------------------------------------- *RD1/8PM* $\boxed{5}\boxed{6}\boxed{1}$ *J*
$47k\Omega \rightarrow 47 \times 10^{3} \rightarrow 473$ ---------------------------------------- *RD1/4PS* $\boxed{4}\boxed{7}\boxed{3}$ *J*
$0.5\Omega \rightarrow 0R5$ ---------------------------------------- *RN2H* $\boxed{0}\boxed{R}\boxed{5}$ *K*
$1\Omega \rightarrow 010$ ---------------------------------------- *RS1P* $\boxed{0}\boxed{1}\boxed{0}$ *K*

*Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).*

$5.62k\Omega \rightarrow 562 \times 10^{1} \rightarrow 5621$ ---------------------------------------- *RN1/4PC* $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ *F*

## LIST OF ASSEMBLIS

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| NSP | | COMPLEX ASS'Y | AWK7188 |
| | | ├ AF ASS'Y | AWZ7750 |
| | | ├ CONTROL ASS'Y | AWZ7751 |
| NSP | | ├ SP SWITCH ASS'Y | AWZ7752 |
| NSP | | ├ TRANS ASS'Y | AWZ7753 |
| | | └ MOTOR VR ASS'Y | AWZ7754 |
| NSP | | TUNER ASS'Y | AWK7193 |
| | | └ TUNER ASS'Y | AWZ7767 |

## AF ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SEMICONDUCTORS | | | |
| | IC751 | | M5278L56 |
| | IC701 | | NJM78M12FAS |
| | IC702 | | NJM79M12FA |
| | IC202 | | TC9163AN |
| | IC201 ,IC253 ,IC501 | | UPC4570C |
| | Q603 | | 2SA1048 |
| | Q521 ,Q522 | | 2SA1145 |
| | Q553 ,Q554 | | 2SA1932P |
| | Q503 ,Q504 | | 2SA992 |
| | Q501 ,Q502 | | 2SC1845 |
| | Q621 ,Q622 | | 2SC2240 |
| | Q507 ,Q508 ,Q601 ,Q602 ,Q604 | | 2SC2458 |
| | Q607 | | 2SC2458 |
| | Q523 ,Q524 | | 2SC2705 |
| | Q551 ,Q552 | | 2SC5174P |
| | Q605 | | XDC124ES |
| | Q606 ,Q751 | | XDC143ES |
| | D501 -D512 ,D621 -D626 | | 1SS252 |
| | D709 ,D710 ,D754 | | 1SS252 |
| | D601 -D603 | | HZS12AL |
| | D707 | | HZS12BL |
| | D705 | | HZS16L |
| | D708 | | HZS6C2L |
| | D513 -D516 | | HZS7B2L |
| | D706 | | RD4.7ESB2 |
| | D713 ,D751 ,D752 | | S5688G |
| COILS AND FILTERS | | | |
| | L701 | LINE FILTER | ATF-151 |
| | L702 -L705 | BEAD FILTER | ATX1012 |
| | L201 -L204 | | LAU221K |
| TRANSFORMERS | | | |
| ⚠ | T751 | | ATT7009 |
| RELAYS | | | |
| ⚠ | RY751 | | ASR1027 |
| | RY600 | | ASR1035 |
| CAPACITORS | | | |
| ⚠ | C708 ,C754 | (0.01/AC400) | ACG1054 |
| | C707 | (5.5/47mF) | ACH1135 |
| | C702 | (8200/71) | ACH1199 |
| | C701 | (8200/71) | ACH1200 |
| | C217 ,C218 ,C221 ,C222 | | CCCSL101K500 |
| | C551 -C554 | | CCCSL101K500 |
| | C207 -C212 | | CCCSL181J50 |
| | C205 ,C206 | | CCCSL181K500 |
| | C233 ,C234 | | CCCSL221J50 |
| | C503 ,C504 | | CCCSL221K500 |
| | C255 ,C256 | | CCCSL470J50 |
| | C507 -C510 | | CCCSL560K500 |
| | C203 ,C204 | | CCMSL330J50 |
| | C750 | | CEANP010M100 |
| | C621 ,C622 | | CEANP4R7M50 |
| | C200 | | CEAS010M50 |
| | C231 ,C232 ,C241 ,C242 ,C704 | | CEAS100M50 |
| | C706 | | CEAS100M50 |
| | C245 ,C246 ,C257 ,C258 | | CEAS101M25 |
| | C513 ,C514 ,C603 ,C606 | | CEAS101M25 |
| | C703 | | CEAS222M35 |
| | C243 ,C244 ,C753 | | CEAS470M25 |
| | C705 | | CEAS470M50 |
| | C711 ,C752 | | CEAS471M35 |
| | C235 ,C236 ,C601 | | CEAS471M6 |
| | C605 | | CEAS4R7M50 |
| | C604 | | CEASR47M50 |
| | C251 -C254 ,C501 ,C502 | | CEZA100M50 |
| | C511 ,C512 | | CEZA101M25 |
| | C237 ,C238 | | CFTXA243J50 |
| | C239 ,C240 | | CFTXA823J50 |
| | C505 ,C506 | | CFTYA105J50 |
| | C561 -C564 | | CFTYA224J50 |
| | C229 ,C230 | | CKCYB222K50 |
| | C951 -C954 ,C959 ,C960 | | CKCYF103Z50 |
| | C247 ,C249 | | CKPUYB331K50 |
| | C227 ,C228 | | CKPUYB391K50 |
| | C248 | | CKPUYB471K50 |
| | C261 ,C262 ,C264 ,C602 | | CKPUYF103Z25 |
| RESISTORS | | | |
| ⚠ | R561 ,R562 | (0.33, 5W) | ACN1063 |
| | R559 ,R560 | | RD1/2PM332J |
| | R752 | | RD1/2PM470J |
| ⚠ | R565 ,R566 | | RD1/2PMF4R7J |
| | R513 -R516 | | RD1/4PM123J |
| | R701 | | RD1/4PM332J |
| | R501 ,R502 ,R525 -R528 | | RD1/4PM470J |
| | R612 | | RD1/4PM472J |
| | R521 ,R522 | | RD1/4PM560J |
| | R503 ,R504 ,R557 ,R558 | | RD1/4PM563J |
| | R523 ,R524 | | RD1/4PM821J |
| ⚠ | R245 ,R246 ,R261 ,R262 | | RD1/4PMF101J |
| ⚠ | R563 ,R564 ,R625 | | RD1/4PMF101J |
| ⚠ | R608 | | RD1/4PMF121J |
| ⚠ | R621 ,R622 ,R631 ,R632 | | RD1/4PMF222J |
| ⚠ | R505 -R508 | | RD1/4PMF270J |
| ⚠ | R723 | | RD1/4PMF681J |
| ⚠ | R263 ,R264 | | RD1/8MMF101J |
| ⚠ | R610 | | RFA1/4PS100J |
| ⚠ | R551 -R554 ,R703 | | RFA1/4PS101J |
| ⚠ | R555 ,R556 | | RFA1/4PS271J |
| ⚠ | R517 -R520 ,R750 | | RFA1/4PS471J |
| ⚠ | R575 -R578 | | RFA1/4PS4R7J |
| ⚠ | R529 -R532 | | RFA1/4PS680J |
| ⚠ | R722 | | RFA1/4PS681J |
| | R533 ,R534 | | RN1/4PC1501F |
| | R535 ,R536 | | RN1/4PC6200F |
| ⚠ | R704 | | RS2MMF911J |
| | | Other Resistors | RD1/8PM□□□J |
| OTHERS | | | |
| | CN8105 | 6P PIN JACK | AKB7009 |
| | | PIN JACK(6P) | AKB7012 |
| | CN8104 | PIN JACK(2P) | AKB7028 |
| | | SPEAKER TERMINAL 8-P | AKE1011 |
| | CN8107 | JACK | AKN-207 |
| ⚠ | CN700 | AC INLET(1P) | AKP1132 |
| | | FUSE CLIP | AKR1003 |
| | | CABLE HOLDER (3P) | AKT1076 |
| | | CABLE HOLDER (6P) | AKT1079 |
| | | CABLE HOLDER (8P) | AKT1081 |

## CONTROL ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SEMICONDUCTORS | | | |
| | IC301 ,IC302 | | NJM4558LD |
| | IC801 | | PDG139A |
| | Q803 ,Q804 | | XDA143ES |
| | Q805 ,Q806 | | XDC124ES |
| | Q801 ,Q802 | | XDC143ES |
| | D804 -D812 | | 1SS252 |
| | D801 | LED (RED) | AEL1065 |
| | D802 | | BR3371XJ65A |
| COILS | | | |
| | L802 -L807 | BEAD FILTER | ATX1012 |
| | L801 | | LAU2R2K |
| SWITCHES | | | |
| | S301 | | ASG1019 |
| | S302 | | ASG1028 |
| | S801 -S830 | | ASG1034 |
| CAPACITORS | | | |
| | C321 ,C322 | | CCPUSL390J50 |
| | C303 ,C304 ,C329 ,C330 | | CCPUSL470J50 |
| | C812 | | CEAS0R1M50 |
| | C301 ,C302 ,C307 ,C308 | | CEAS100M50 |
| | C317 ,C318 ,C323 ,C324 | | CEAS100M50 |
| | C801 | | CEAS220M50 |
| | C804 | | CEAS221M10 |
| | C305 ,C306 ,C319 ,C320 | | CEAS470M25 |
| | C811 | | CEAS4R7M50 |
| | C325 ,C326 | | CFTYA104J50 |
| | C309 ,C310 | | CFTYA153J50 |
| | C315 ,C316 | | CFTYA183J50 |
| | C311 ,C312 ,C327 ,C328 | | CFTYA823J50 |
| | C813 | | CKCYF103Z50 |
| | C819 ,C820 | | CKCYF223Z50 |
| | C821 ,C822 | | CKCYX104M16 |
| | C807 -C809 | | CKPUYB331K50 |
| | C814 ,C815 | | CKPUYB471K50 |
| | C802 ,C805 | | CKPUYF473Z16 |
| | C803 | | CKPUYY103M16 |
| | C313 ,C314 | | CQMA332J50 |
| RESISTORS | | | |
| ⚠ | R345 ,R346 | | RD1/4PMF101J |
| | VR302 ,VR303 | (100k-20A x2) | ACS1053 |
| | VR301 | (100k x2) | ACS1054 |
| | | Other Resistors | RD1/8PM□□□J |
| OTHERS | | | |
| | V801 | FL DISPLAY | AAV1173 |
| | | FL SPACER | AEB1120 |
| | X801 | CERAMIC RESONATOR (7.70MHz) | ASS1055 |
| | | REMOTE RECEIVER UNIT | AXX1023 |

## SP SWITCH ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SWITCHES | | | |
| | S980 | | SUL5LXXS |
| CAPACITORS | | | |
| | C981 ,C982 | | CKCYB392K50 |
| RESISTORS | | | |
| ⚠ | R981 ,R982 | | RS2MMF331J |
| OTHERS | | | |
| | | JACK | AKN1002 |
| | | CABLE HOLDER (6P) | AKT1079 |

## TRANS ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SEMICONDUCTORS | | | |
| | D101 | | D5SB20F |
| | D102 -D105 | | S5688G |
| CAPACITORS | | | |
| | C101 | (1/100) | ACH1237 |
| | C103 | | CEANP2R2M100 |
| RESISTORS | | | |
| ⚠ | R101 -R104 | | RD1/2PMF2R2J |
| ⚠ | R105 ,R106 | | RFA1/4PS100J |
| OTHERS | | | |
| | CN1 | JUMPER CONNECTOR | KPC8 |

## MOTOR VR ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SEMICONDUCTORS | | | |
| | IC401 | | TA8409S |
| | IC400 | | UPC4570C |
| COILS | | | |
| | L421 ,L422 | | LAU220K |
| CAPACITORS | | | |
| | C409 ,C410 | | CEAS101M25 |
| | C421 | | CEAS470M50 |
| | C401 ,C402 | | CEZA100M50 |
| | C422 ,C423 | | CKCYX473M25 |
| | C403 -C406 | | CKPUYB101K50 |
| | C407 ,C408 | | CKPUYB681K50 |
| RESISTORS | | | |
| ⚠ | R409 ,R410 | | RD1/4PMF101J |
| | VR400 | (50k-A5 x2) | ACX7009 |
| | | Other Resistors | RD1/8PM☐☐☐J |
| OTHERS | | | |
| | CN8 | CONNECTOR(14P) | KPE14 |

## TUNER ASS'Y

| Mark | No. | Description | Parts No. |
|---|---|---|---|
| SEMICONDUCTORS | | | |
| | IC251 | | AN7470P |
| | IC201 | | LA1265S |
| | IC121 | | LM7001J |
| | IC302 | | NJM78M12FAS |
| | IC301 | | NJM78M56FAS |
| | IC501 | | PM4002B |
| | IC151 ,IC152 | | TA7060AP |
| | Q501 | | 2SA1145 |
| | Q253 | | 2SA933S |
| | Q102 ,Q241 ,Q251 ,Q252 | | 2SC1740S |
| | Q254 -Q257 ,Q502 ,Q503 | | 2SC1740S |
| | Q122 | | 2SC1740SLN |
| | Q151 -Q153 ,Q504 | | 2SC2668 |
| | Q121 | | 2SK246 |
| | Q101 ,Q103 | | XDA143ES |
| | D201 -D206 | | 1SS252 |
| | D101 | | 1SV156 |
| COILS AND FILTERS | | | |
| | F151 ,F153 ,F154 | | ATF-107 |
| | F201 | (F=450kHz) | ATF-208 |
| | F152 | | ATF1024 |
| | F251 ,F252 | | ATF1143 |
| | F241 | | ATF1152 |
| | L101 ,L121 ,L151 ,L152 | | LAU2R2K |
| | L102 ,L104 | | LAU330K |
| TRANSFORMERS | | | |
| | T151 | | ATE-063 |
| | T201 | | ATE1001 |
| | T202 | | ATE1002 |
| CAPACITORS | | | |
| | C121 ,C122 | | CCMCH150J50 |
| | C502 ,C503 | | CCMCH220J50 |
| | C109 | | CCPUSL220J50 |
| | C123 ,C124 ,C131 | | CCPUSL470J50 |
| | C206 ,C305 | | CEAS010M50 |
| | C133 ,C151 ,C209 | | CEAS100M50 |
| | C513 ,C516 | | CEAS101M10 |
| | C263 | | CEAS1R5M50 |
| | C507 | | CEAS2R2M50 |
| | C127 ,C208 | | CEAS330M35 |
| | C264 | | CEAS3R3M50 |
| | C204 ,C215 | | CEAS470M25 |
| | C303 | | CEAS470M50 |
| | C212 | | CEAS4R7M50 |
| | C262 | | CEASR22M50 |
| | C306 | | CEEA010M50 |
| | C267 | | CEEA101M25 |
| | C311 | | CEEA101M50 |
| | C255 ,C256 | | CEEA3R3M50 |
| | C260 ,C304 | | CEEA470M25 |
| | C242 ,C269 ,C270 | | CEEA4R7M50 |
| | C251 | | CEEANP4R7M25 |
| | C128 | | CFTYA224J50 |
| | C301 | | CKCYB103K50 |
| | C257 ,C258 | | CKCYB222K50 |
| | C508 ,C509 | | CKCYB332K50 |
| | C510 ,C511 | | CKCYB472K50 |
| | C241 | | CKDYB122K50 |
| | C210 | | CKDYB222K50 |
| | C101 ,C106 -C108 | | CKDYX103M25 |
| | C105 ,C201 ,C202 ,C213 ,C504 | | CKDYX223M25 |
| | C506 | | CKDYX223M25 |
| | C104 ,C153 ,C156 ,C211 ,C252 | | CKDYX473M25 |
| | C505 | | CKDYX473M25 |
| | C132 ,C514 | | CKPUYB102K50 |
| | C266 | | CKPUYB121K50 |
| | C125 | | CKPUYB151K50 |
| | C207 | | CKPUYB331K50 |
| | C102 ,C103 ,C126 ,C129 ,C130 | | CKPUYY103M16 |
| | C152 ,C154 ,C157 ,C203 ,C205 | | CKPUYY103M16 |
| | C214 ,C216 ,C261 ,C268 ,C501 | | CKPUYY103M16 |
| | C512 ,C515 | | CKPUYY103M16 |
| | C253 ,C254 | | CQMXA152J100 |
| | C265 | | CQPA471J100 |
| RESISTORS | | | |
| | R102 | | RD1/2PM681J |
| ⚠ | R303 | | RFA1/4PS4R7J |
| ⚠ | R301 ,R302 | | RS2LMF102J |
| ⚠ | R304 -R306 | | RS2LMF470J |
| | VR252 | (4.7k) | ACP1042 |
| | VR201 ,VR202 | (10k) | ACP1043 |
| | VR501 | (47k) | ACP1045 |
| | | Other Resistors | RD1/8PM☐☐☐J |
| OTHERS | | | |
| | | ANTENNA TERMINAL 2-P | AKA1012 |
| | X121 | CRYSTAL RESONATOR (7.200MHz) | ASS1042 |
| | X501 | CRYSTAL RESONATOR (4.332MHz) | ASS1061 |
| | X201 | CERAMIC RESONATOR (450kHz) | ATF1027 |
| | | AM RF TUNING BLOCK | AXX1011 |
| | CN4 ,CN5 | JUMPER CONNECTOR 3-P | KPC3 |
| | CN3 | CONNECTOR(12P) | KPE12 |
| | | 4 -serial F.E. module | AXQ1004 |

# 5. ADJUSTMENTS

## 5.1 FM TUNER ADJUSTMENTS

- Connect as shown in the Fig. 5−1.

### 5.1.1 FM MONO

| Step | Adjustment Name | FM SG (1kHz, ±75kHz dev.) | | | FL Display IF BAND etc. | Location | Adjustment |
|---|---|---|---|---|---|---|---|
| | | Frequency | Modulation | Level | | | |
| 1 | IF sensitivity adjustment | 98MHz | MONO | Low input level | 98MHz | T151 | Adjust so that the voltage between TP203 and GND becomes maximum. |
| 2 | T meter adjustment | 98MHz | MONO | 60dBμV | 98MHz | T201 | Adjust so that the voltage between TP201 and TP202 becomes 0±50mV. |
| 3 | MONO distortion adjustment | 98MHz | MONO | 60dBμV | 98MHz | T202 | Adjust so that the distortion becomes minimum. |
| 4 | Perform the adjustments in steps 2 and 3 repeatedly, until the specified values are obtained for both. | | | | | | |

### 5.1.2 FM STEREO

| Step | Adjustment Name | FM SG (1kHz, ±75kHz dev.) | | | FL Display IF BAND etc. | Location | Adjustment |
|---|---|---|---|---|---|---|---|
| | | Frequency | Modulation | Level | | | |
| 1 | VCO adjustment | 108MHz | OFF | 60dBμV | 108MHz | VR252 | Adjust so that the output at TP251 becomes 76kHz ±0.5kHz. |
| 2 | Stereo distortion adjustment | 89MHz | L−ONLY | 60dBμV | 89MHz | T151 | Minimize the distortion within 1/4 rotation of core. |

*Stereo modulation : Main 1kHz, L+R, ±68.25kHz dev. Pilot 19kHz, ±6.75kHz dev.*

### 5.1.3 FM ETC

| Step | Adjustment Name | FM SG (1kHz, ±75kHz dev.) | | | FL Display IF BAND etc. | Location | Adjustment |
|---|---|---|---|---|---|---|---|
| | | Frequency | Modulation | Level | | | |
| 1 | TUNED indicator adjustment | 98MHz | MONO | 12dBμV ±3dB | 98MHz | VR201 | Adjust so that the indicator lights up. |
| 2 | SK level adjustment | 88MHz | *1 RF SG (External) | 60dBμV | 88MHz NORMAL (ATT ON) | VR501 | Adjust so that the voltage between TP501 (57kHz) and GND becomes maximum. |

**1 : RDS SG (AUDIO, PILOT, RDS, BK and DK : OFF, SK : ON)*

## 5.2 AM TUNER ADJUSTMENTS

- Connect as shown in the Fig. 5−2.

| Step | Adjustment Name | AM SG (400Hz, 30% modulation) | | | FL Display IF BAND etc. | Location | Adjustment |
|---|---|---|---|---|---|---|---|
| | | Frequency | Modulation | Level | | | |
| 1 | TUNED indicator adjustment | 1008kHz | ON | 55dBμV/m ±10dB | 1008kHz | VR202 | Adjust so that the indicator lights up. |

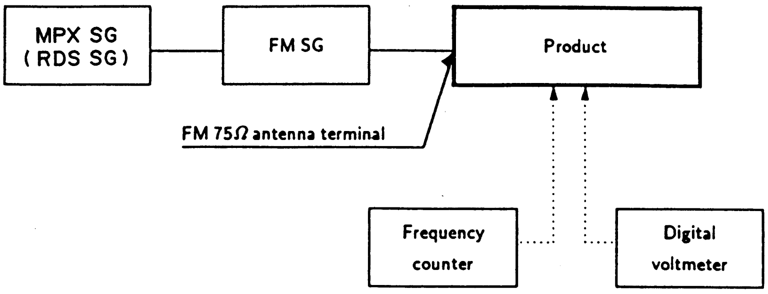

MPX SG
( RDS SG )
FM SG
Product
FM 75Ω antenna terminal
Frequency counter
Digital voltmeter

Fig. 5 – 1 FM Adjustment Connection Diagram

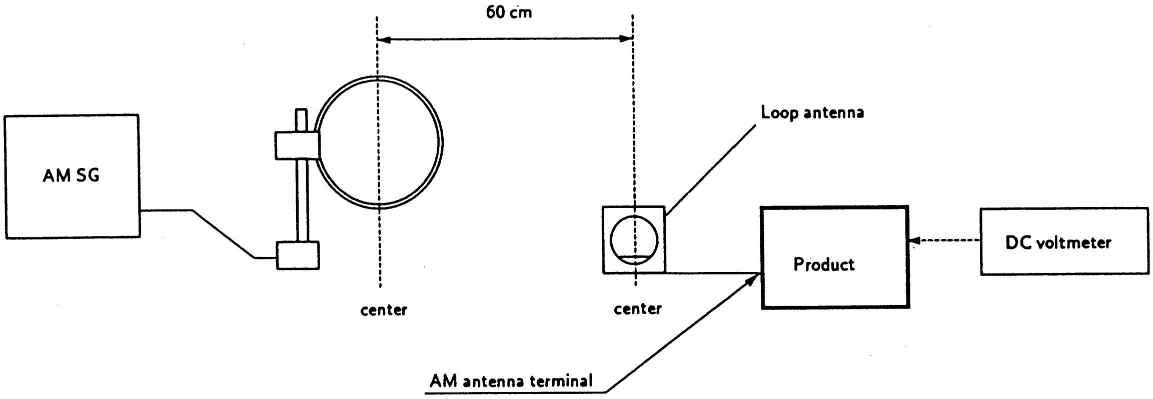

60 cm
Loop antenna
AM SG
Product
DC voltmeter
center
center
AM antenna terminal

Fig. 5 – 2 AM Adjustment Connection Diagram

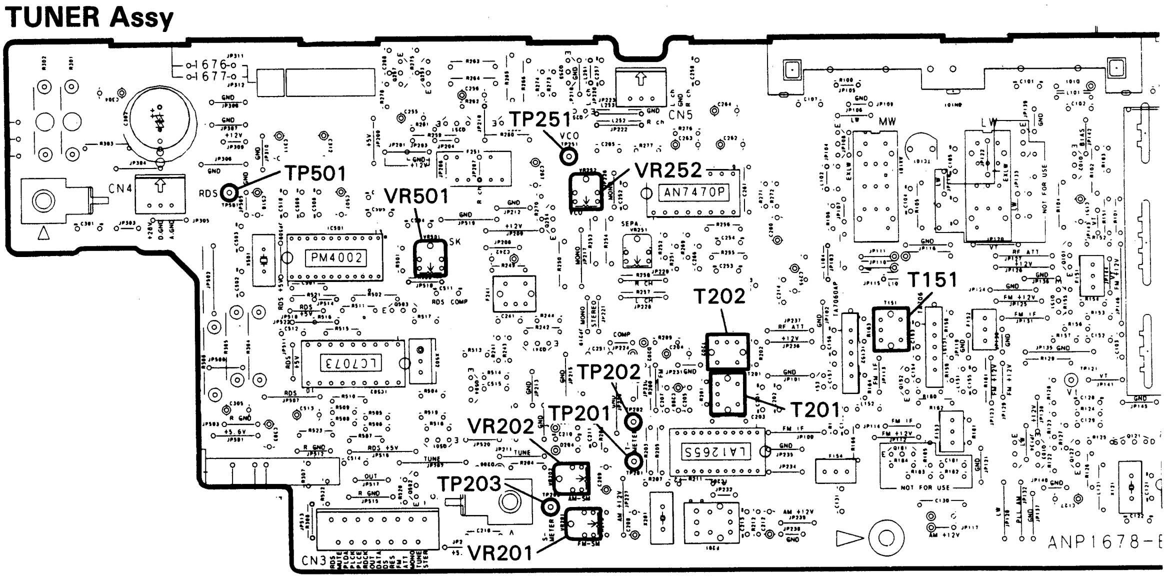

TUNER Assy
TP501
RDS
CN4
VR501
PM4002
TP251
VCO
CN5
VR252
AN7470P
MW
LW
T151
T202
TP202
T201
TP201
VR202
TP203
VR201
CN3
NOT FOR USE
ANP1678-

Fig. 5 – 3 Adjustment Points

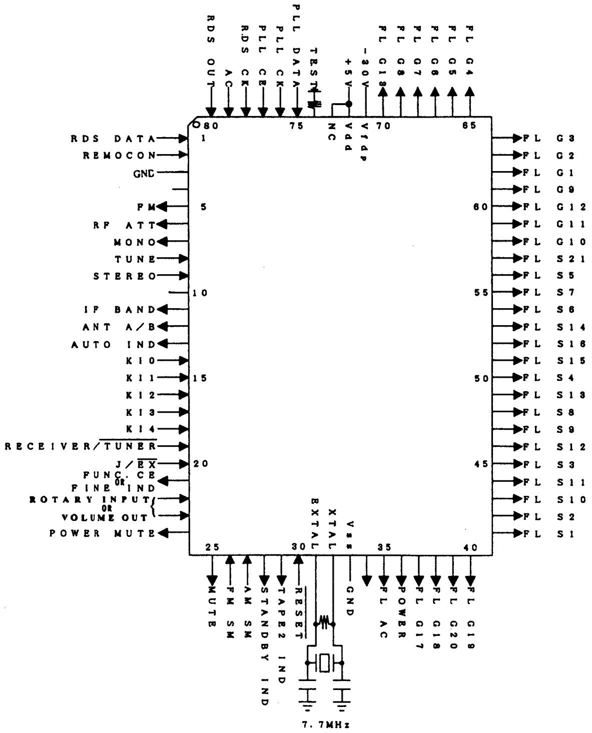
# 6. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

## ■ PDG139A(IC801)

### ● System Control

● Pin Assignment (Top View)


RDS OUT
AC
RDS CK
PLL CE
PLL CK
PLL DATA
TEST
+5V
-30V
FL G18
FL G8
FL G7
FL G6
FL G5
FL G4
80
75
NC
Vdd
Vfdp
70
65
RDS DATA
REMOCON
GND
FM
RF ATT
MONO
TUNE
STEREO
IF BAND
ANT A/B
AUTO IND
KI 0
KI 1
KI 2
KI 3
KI 4
RECEIVER/TUNER
J/EX
FUNC. CE OR FINE IND
ROTARY INPUT OR VOLUME OUT
POWER MUTE
1
5
10
15
20
25
FL G3
FL G2
FL G1
FL G9
FL G12
FL G11
FL G10
FL S21
FL S5
FL S7
FL S6
FL S14
FL S16
FL S15
FL S4
FL S13
FL S8
FL S9
FL S12
FL S3
FL S11
FL S10
FL S2
FL S1
60
55
50
45
40
EXTAL
XTAL
Vss
30
35
MUTE
FM SM
AM SM
STANDBY IND
TAPE2 IND
RESET
GND
FL AC
POWER
FL G17
FL G18
FL G20
FL G19
7.7MHz

● Pin Function

| No. | Name | I/O | Description | ACT. |
|---|---|---|---|---|
| 1 | RDS DATA | I | DATA from LC7073 | – |
| 2 | REMOCON | I | REMOCON Signal | – |
| 3 | ——— | I | Connect to GND | – |
| 4 | ——— | – | Not used | – |
| 5 | FM | O | FM BAND select | H |
| 6 | RF ATT | O | RF ATT ON/OFF | H |
| 7 | MONO | O | FM MONO output | H |
| 8 | TUNE | I | TUNE signal | L |
| 9 | STEREO | I | STEREO signal | L |
| 10 | ——— | – | Not used | L |
| 11 | IF BAND | O | Switching IF BAND (TUNER only) | – |
| 12 | ANT A/B | O | Switching ANTENNA (TUNER only) | – |
| 13 | AUTO IND | O | TUNING MODE AUTO operation MODE LED ON/OFF (TUNER only) | L |
| 14 | KI 0 | I | KEY SCAN Input 0 | H |
| 15 | KI 1 | | KEY SCAN Input 1 | |
| 16 | KI 2 | | KEY SCAN Input 2 | |
| 17 | KI 3 | | KEY SCAN Input 3 | |
| 18 | KI 4 | | KEY SCAN Input 4 | |
| 19 | RECEIVER/TUNER | I | Switching RECEIVER/TUNER | – |
| 20 | J / EX | I | J (H) / EX (L) input | – |
| 21 | FUNC.CE | O | Function switching IC (TC9163N) Chip enable (RECEIVER only) | H |
| | FINE IND | O | TUNING MODE FINE operation MODE LED ON/OFF (TUNER only) | L |
| 22 | VOLUME OUTPUT | O | VOLUME control (Pin No. 22 : UP Pin No. 23 : DOWN) | H |
| 23 | ROTARY INPUT | I | Rotary Encoder A/B (Pin No. 22 : A, Pin No. 23 : B) | – |
| 24 | POWER MUTE | O | MUTE control | H |
| 25 | MUTE | O | MUTE control | H |
| 26 | FM S-METER | I | FM S METER input (TUNER only) | A/D |
| 27 | AM S-METER | I | AM S METER input (TUNER only) | A/D |
| 28 | STANDBY IND | O | LED for STANDBY ON/OFF | L |
| 29 | TAPE2 IND | O | LED for TAPE2 ON/OFF (RECEIVER only) | H |
| 30 | RESET | I | $\mu$–COM. RESET input | – |

| No. | Name | I/O | Description | ACT. |
|---|---|---|---|---|
| 31 | EXTAL | – | Connected to Ceramic oscillator (7.7MHz) | – |
| 32 | XTAL | – | | |
| 33 | Vss | – | Reference Voltage (GND) | – |
| 34 | ——— | O | Not Used | – |
| 35 | FL AC | O | FL AC ON/OFF | L |
| 36 | POWER | O | Switching POWER ON/OFF | H |
| 37 | FL S17 | O | FL control segment output | H |
| 38 | FL S18 | | | |
| 39 | FL S20 | | | |
| 40 | FL S19 | | | |
| 41 | FL S1 | | | |
| 42 | FL S2 | | | |
| 43 | FL S10 | | | |
| 44 | FL S11 | | | |
| 45 | FL S3 | | | |
| 46 | FL S12 | | | |
| 47 | FL S9<br>/KO 0 | O | FL control segment output/KEY SCAN output | H |
| 48 | FL S8<br>/KO 1 | | | |
| 49 | FL S13<br>/KO 2 | | | |
| 50 | FL S4<br>/KO 3 | | | |
| 51 | FL S15<br>/KO 4 | | | |
| 52 | FL S16<br>/KO 5 | | | |
| 53 | FL S14<br>/KO 6 | | | |
| 54 | FL S6<br>/KO 7 | | | |

| No. | Name | I/O | Description | ACT. |
|---|---|---|---|---|
| 55 | FL S7 | O | FL control segment output | H |
| 56 | FL S5 | | | |
| 57 | FL S21 | | | |
| 58 | FL G10 | O | FL control timing output | H |
| 59 | FL G11 | | | |
| 60 | FL G12 | | | |
| 61 | FL G9 | | | |
| 62 | FL G1 | | | |
| 63 | FL G2 | | | |
| 64 | FL G3 | | | |
| 65 | FL G4 | | | |
| 66 | FL G5 | | | |
| 67 | FL G6 | | | |
| 68 | FL G7 | | | |
| 69 | FL G8 | | | |
| 70 | FL G13 | | | |
| 71 | Vfdp | – | Negative voltage (–30V) for FDP input | – |
| 72 | Vdd | – | +5V Power supply | – |
| 73 | ——— | – | Connected to Vdd | – |
| 74 | TEST | I | TEST MODE | H |
| 75 | PLL DATE | O | Tuner PLL IC (LM7001) DATA | – |
| 76 | PLL CK | O | Tuner PLL IC (LM7001) CLOCK | – |
| 77 | PLL CE | O | Tuner PLL IC (LM7001) Chip enable | H |
| 78 | RDS CK | I | Synchronized Clock of each bits from LC7073 | – |
| 79 | AC | I | AC PULS input | – |
| 80 | RDS OUT | I | Effective RDS signal verification | L |

# 7. FOR SX-704RDS/HEWZ AND SX-704RDS-G/HEZ

***NOTES:***

- ***Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.***
- ***The " ⚠ " mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.***
- ***Parts marked by " ◉ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.***
- ***When ordering resistors, first convert resistance values into code form as shown in the following examples.***

***Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohms and 47k ohms (Tolerance is shown by J = 5%, and K =10%).***

*560Ω → $56 \times 10^1$ → 561 ---------- RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ J*
*47kΩ → $47 \times 10^3$ → 473 ---------- RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ J*
*0.5Ω → 0R5 ---------- RN2H $\boxed{0}\boxed{R}\boxed{5}$ K*
*1Ω → 010 ---------- RS1P $\boxed{0}\boxed{1}\boxed{0}$ K*

***Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).***

*5.62kΩ → $562 \times 10^1$ → 5621 ---------- RN1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F*

## ●SX-704RDS/HEWZ AND SX-704RDS-G/HEZ

SX-704RDS/HEWZ, SX-704RDS-G/HEZ and SX-704RDS/HE have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | | Rmarks |
|---|---|---|---|---|---|
| | | SX-704RDS /HE | SX-704RDS /HEWZ | SX-704RDS-G /HEZ | |
| NSP | TUNER ASSY | AWK7193 | AWK7189 | AWK7189 | |
| | TUNER ASSY | AWZ7767 | AWZ7755 | AWZ7755 | |
| | Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese) | ARE7041 | Not used | ARE7041 | |
| | Operating instructions (German) | Not used | ARC7061 | Not used | |
| | Rotary knob L | AAB1343 | AAB1343 | AAB1355 | |
| | Rotary knob S | AAB1353 | AAB1353 | AAB1354 | |
| | Power botton | AAD2421 | AAD2421 | AAD2450 | |
| | Push botton | AAD2423 | AAD2423 | AAD2452 | |
| | Function button | AAD2448 | AAD2448 | AAD2449 | |
| | Front panel | ANB7012 | ANB7012 | ANB7013 | |
| | Pnel base | AMB7220 | AMB7220 | AMB7221 | |
| | Name plate | AAM1058 | AAM1058 | VAM1051 | |
| | Bonnet case | ANE7066 | ANE7066 | ANE7070 | |
| | Carton | AHD7163 | AHD7163 | AHD7164 | |
| | Remote control unit (CU-SX067) | AXD1361 | AXD1361 | Not used | |
| | Remote control unit (CU-SX071) | Not used | Not used | AXD1362 | |
| | Battery lid | PNZ1001 | PNZ1001 | AZA1376 | |
| | Screw | BBT30P060FZK | BBT30P060FZK | ABA-274 | |

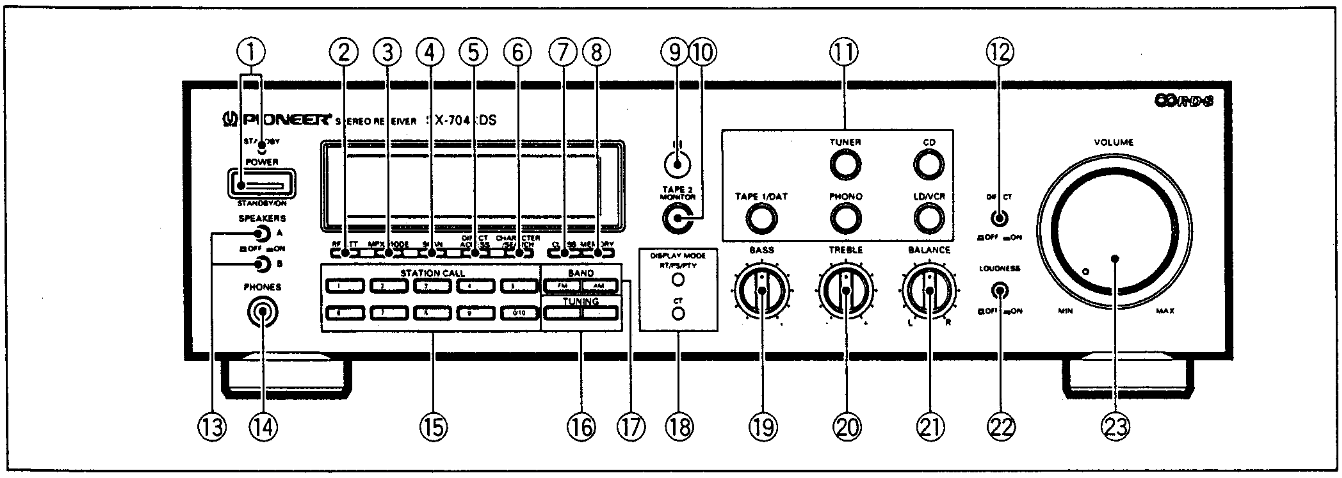
## ●TUNER ASSY

AWZ7755 and AW7767 have the same construction except for the following:

| Mark | Symbol & Description | Part No. | | Rmarks |
|---|---|---|---|---|
| | | AWZ7767 | AWZ7755 | |
| | R261, R262 | RD1/8PM681J | RD1/8PM431J | |

# 8. PANEL FACILITIES

## • FRONT PANEL FACILITIES



### ① POWER (STANDBY/ON) switch/STANDBY indicator

This is the switch for electric power.

**ON**: When set to the ON position, power is supplied and the unit becomes operational.

**STANDBY**: When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
When the STANDBY indicator lights, the unit is on STANDBY.

***NOTE:***

- *The memory will be backed up so long as the power cord is not unplugged.*
- *If the power cord is unplugged, the memory will be retained for several days.*
- *Disconnect the power cord from the AC wall outlet when not using the unit for a long time. (Do not disconnect the power cord from AC INLET of the unit.)*

### ② RF ATT button

Set this button to ON when receiving strong FM signals (near-by stations) to reduce sound distortion (RF ATT indicator lights).
Normally, this button should be set to OFF.
This button has no effect on reception of AM broadcasts.

***NOTE:***

- *This button's status is preset for each station in station memory.*

### ③ MPX (multiplex) MODE button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the MONO indicator is lit.

**Auto stereo mode:**
Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

**Monaural mode:**
When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

***NOTE:***

- *This button has no effect on reception of AM broadcasts.*
- *This button's status is preset for each station in station memory.*

### ④ SCAN button

This button is used for station memory scan.
The system receives in sequence all stations (1 to 10) stored under the currently selected class for several seconds each. (To scan a different class, select a class with the CLASS button, then press the SCAN button.)

- This button does not function when the SLEEP button of the remote control unit is ON.

### ⑤ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

- This button does not function when the SLEEP button of the remote control unit is ON.

### ⑥ CHARACTER/SEARCH button

**When receiving an AM broadcast, or when in the FM RT, PS modes:**
Press the button, "INPUT" is displayed, and the mode switches to manual station name input.

**When in the FM PTY mode:**
Press the button, "SEARCH" is displayed, and the mode switches to program type search.

- This button does not function when the SLEEP button of the remote control unit is ON.

### ⑦ CLASS button

Use to switch between preset memory classes 1 to 4. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 40 stations to be memorized.

### ⑧ MEMORY button

Use to preset stations.
Also used for FM/AM broadcast manual station name character selection.

### ⑨ Remote sensor window

### ⑩ TAPE 2 MONITOR button/indicator

Press when performing playback on a second cassette deck and monitoring recording.

- This button/indicator does not function when the DIRECT button is ON.

### ⑪ Input selector buttons

**TUNER**: Press when listening to radio broadcasts.
**CD**: Press when playing compact discs on a CD player.
**TAPE 1/DAT**: Press when performing playback on a cassette deck or DAT.
**PHONO**: Press when playing records on a turntable.
**LD/VCR**: Press when listening to programs from a component connected to the LD/VCR terminals.

### ⑫ DIRECT button (■ OFF ▬ ON)

Use this button when you wish to bypass the various frequency adjusting circuits BASS, TREBLE, BALANCE, LOUDNESS. Also, the TAPE 2 MONITOR button will not function.

**ON**:
When this button is in this position, the signals input from the input jacks are reproduced without passing through the various frequency-adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

**OFF**:
When the button is this position the signal passes through the various frequency adjusting circuits.

### ⑬ SPEAKERS A, B buttons (■ OFF ▬ ON)

Use to select the speaker system that you wish to listen to.
**A**: When the speakers connected to A terminals are in use.
**B**: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to the OFF position when only headphones are in use.

### ⑭ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B buttons to the OFF position.

### ⑮ STATION CALL buttons

Use these buttons to preset stations and to receive already preset stations.
They are also used when performing direct access tuning.

### ⑯ TUNING +/– buttons

Use to receive a broadcast. Press the buttons to change the frequency display (3-Speed Accel Tuning)
In the Manual Station Name input mode, and PTY Search mode, use to select characters and program type.

### ⑰ BAND selector buttons

These buttons are used to select either AM or FM reception.
**AM**: Push this button for AM reception.
**FM** : Push this button for FM reception.

### ⑱ DISPLAY MODE buttons

**RT/PS/PTY**:
When receiving RDS broadcasts in FM, these buttons switch the display. Each time the buttons are pressed, the following display is switched.

→RT mode
Displays PS → RT → PTY in sequence. (Skipped when there is no PTY data.) → Returns to PS.
↓
PS mode
↓
PTY mode

- This button does not function when the SLEEP button of the remote control unit is ON.

**CT**:
When receiving RDS broadcasts in FM, these buttons switch the displayed frequency range and the clock time. Each time the buttons are pressed, the following display is switched.

→CT on → CT off

### ⑲ BASS tone control

Use to adjust the low-frequency tone. The center position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized; when turned to the left, low-frequency tones are de-emphasized.

***NOTE:***

- *When the volume level is set below the 11 o'clock position, the set tone control effect is obtained.*
  *When the volume level is set above the 11 o'clock position, the effect becomes increasingly weaker.*
  *Near maximum volume, there is no effect.*
- *This control does not operate when the DIRECT button is in the ON position.*

### ⑳ TREBLE tone control

Use to adjust high-frequency tone. The center position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized; when turned to the left, high-frequency tones are de-emphasized.

***NOTE:***

- *When the volume level is set below the 11 o'clock position, the set tone control effect is obtained.*
  *When the volume level is set above the 11 o'clock position, the effect becomes increasingly weaker.*
  *Near maximum volume, there is no effect.*
- *This control does not operate when the DIRECT button is in the ON position.*

### ㉑ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers.
If the right side is louder, turn toward the L position and if the left side. is louder, turn toward the R position.

***NOTE:***

*This control does not operate when the DIRECT button is in the ON position.*

### ㉒ LOUDNESS button

Use when listening at low volume levels.
**ON**: Boosts low and high frequencies to produce a fuller sense of sound, particularly at low volume levels.
**OFF**: Normal position.

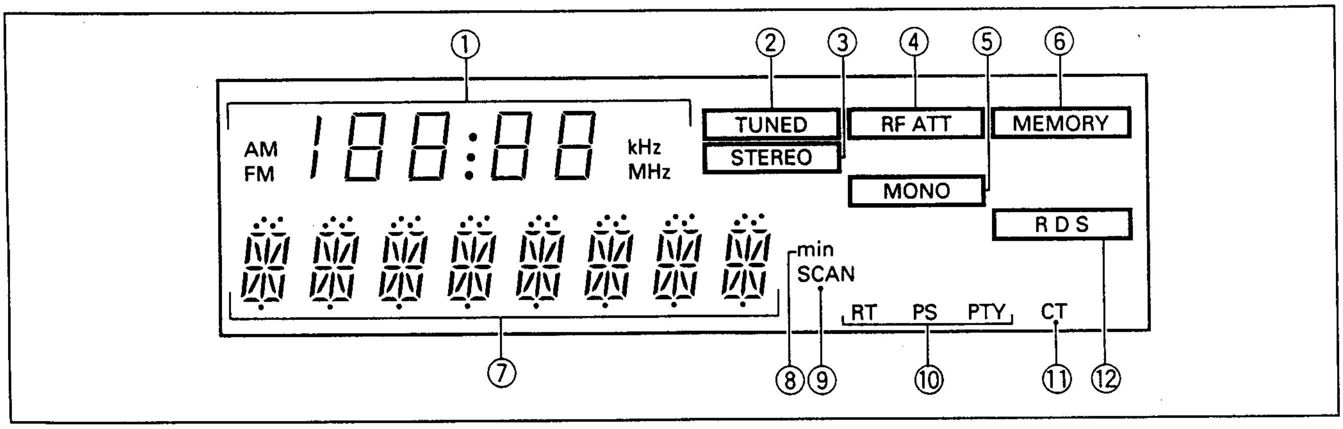
***NOTE:***

*This button does not operate when the DIRECT button is in the ON position.*

### ㉓ VOLUME control

Use to adjust volume level.

## OPERATING DISPLAY



**① Clock time/frequency indicator**
Clock Time (CT) data, and band and frequency data is displayed.

**② TUNED indicator**
Lights when a broadcast is received.

**③ STEREO indicator**
Lights up when a stereo broadcast is received.
(The indicator does not light when the MPX MODE button is set to MONO.)

**④ RF ATT indicator**
Stays lit while RF ATT button is on.

**⑤ MONO indicator**
Stays lit while MPX MODE button is set to MONO.

**⑥ MEMORY indicator**
When presetting a station, press the MEMORY button and it lights for a few seconds.

**⑦ Character • Class Display**
Displays INPUT SELECTOR, CLASS, STATION No., STATION NAME and the remaining time of the sleep timer. When receiving RDS broadcasts in FM by pressing the DISPLAY MODE RT/PS/PTY button, the following display is switched.

→ RT mode
  Displays PS → RT → PTY in sequence.(Skipped when there is no PTY data.) → Returns to PS.
↓
PS mode
↓
PTY mode

**⑧ Min indicator**
Lights when the remaining sleep time is displayed.

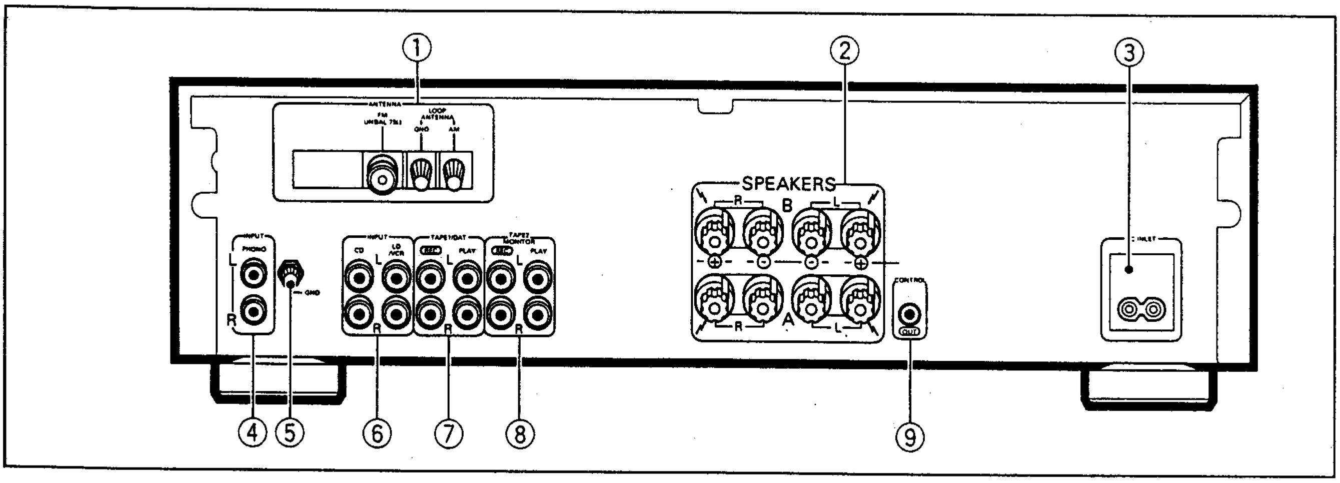
**⑨ SCAN indicator**
Lights when the station memory scan is operating.

**⑩ RT, PS, PTY indicator**
Displays the type of RDS data received, when receiving an FM, RDS broadcast.

**⑪ CT indicator**
Lights when CT is ON.

**⑫ RDS indicator**
Lights when an RDS broadcast is received.

## • REAR PANEL FACILITIES


①
②
③
ANTENNA
FM UNBAL 75Ω
LOOP ANTENNA
GND
AM
SPEAKERS
R
B
L
A
INPUT
PHONO
L
R
GND
INPUT
CD
LD/VCR
TAPE1/DAT
REC
PLAY
TAPE2 MONITOR
REC
PLAY
CONTROL
OUT
INLET
④
⑤
⑥
⑦
⑧
⑨

### ① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

### ② SPEAKERS terminals

**A**:Connect to a first set of speakers.
**B**:Connect to a second set of speakers.

### ③ AC INLET

Connect the accessory power cord here.

### ④ PHONO INPUT jacks

Connect to the output cables of a turntable.

### ⑤ GND terminal

Connect to the ground lead of a turntable.

### ⑥ INPUT jacks

| | |
|---|---|
| **CD** | : Connect to the output jacks of a compact disc player. |
| **LD/ VCR** | : Connect to the output jacks of the LD player or video cassette recorder. |

### ⑦ TAPE 1/DAT jacks

Connect these jacks to the cassette deck or digital audio tape deck.

### ⑧ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

### ⑨ CONTROL OUT jack

Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

**See Fig 3.**

① Receiver
② Remote control unit
③ Pioneer component bearing the SR mark.
④ Control cable supplied with other equipment.
⑤ To the CONTROL IN jack of other component.

# 9. SPECIFICATIONS

### Amplifier Section

| | |
|---|---|
| Continuous Power Output (both channel driven, DIN)* | |
| 1 kHz, T.H.D. 1 %, 4 Ω | 90 W + 90 W |
| 20 Hz – 20 kHz, T.H.D. 0.07%, 8 Ω | 60 W + 60 W |
| Dynamic power output (with EIA test signal) | |
| 2/4/8 Ω | 120 W/110 W/85 W |
| Total Harmonic Distortion* | |
| 20 Hz – 20 kHz, 60 W , 8 Ω | 0.07 % |
| Damping factor 1 kHz, 8 Ω | 33 |

• *Above specifications are for when power supply is 230 V.*

| | |
|---|---|
| Input (Sensitivity/Impedance) | |
| PHONO | 2.8 mV/47 kΩ |
| CD, LD/ VCR, TAPE 1/DAT, TAPE 2 | 200 mV/47 kΩ |
| Phono Overload Level (T.H.D. 0.08%, 1.000 Hz) | |
| PHONO | 95 mV |
| Output (Level/Impedance) | |
| TAPE REC | 200 mV/2.2 kΩ |
| Frequency Response | |
| PHONO (RIAA Equalization) | 20 Hz to 20, 000 Hz ±0.5 dB |
| CD, LD/ VCR, TAPE 1/DAT, TAPE 2 | 10 Hz to 100, 000 Hz $^{+0.5}_{-3.0}$ dB |
| Signal-to-Noise Ratio (IHF, short circuited, A network) | |
| PHONO | 80 dB |
| CD, LD/ VCR, TAPE 1/DAT, TAPE 2 | 104 dB |
| Signal-to-Noise Ratio (DIN.continuous power/50 mW) | |
| PHONO | 70 dB/66 dB |
| CD, LD/ VCR, TAPE 1/DAT, TAPE 2 | 93 dB/68 dB |
| Tone control | |
| BASS | ±8 dB (100 Hz at – 30 dB) |
| TREBLE | ±8 dB (10 kHz at – 30 dB) |
| LOUDNESS | +6 dB (100 Hz at – 30 dB)<br>+3 dB (10 kHz at – 30 dB) |

### FM Tuner Section

| | |
|---|---|
| Frequency range | 87.5 MHz to 108 MHz |
| Usable Sensitivity | 12.7 dBf, IHF (1.2 µV/75 Ω) |
| 50 dB Quieting Sensitivity | |
| MONO | 18 dBf (2.2 µV/75 Ω) |
| STEREO | 38.3 dBf (22.6 µV/75 Ω) |
| Sensitivity (DIN) | |
| MONO | 1.0 µV/75 Ω |
| STEREO | 35 µV/75 Ω |
| Signal-to-Noise Ratio | |
| MONO | 77 dB (at 80 dBf) |
| STEREO | 73 dB (at 80 dBf) |
| Signal-to-Noise Ratio (DIN) | |
| MONO | 62 dB |
| STEREO | 60 dB |
| Distortion | |
| MONO | 0.11% (1 kHz) |
| STEREO | 0.15% (1 kHz) |
| Alternate Channel Selectivity | 60 dB (300 kHz) |
| Stereo Separation | 42 dB (1 kHz) |
| Frequency Response | 30 Hz to 15 kHz (±1 dB) |
| Subcarrir suppression ratio | 64 dB |
| Antenna Input | 75 Ω unbalanced |

### AM Tuner Section

| | |
|---|---|
| Frequency range | 531 kHz to 1, 602 kHz |
| Sensitivity | |
| IHF, Loop antenna | 200 µV/m |
| Selectivity | 25 dB |
| Signal-to-Noise Ratio | 53 dB |
| Antenna | AM Loop Antenna |

### Miscellaneous

| | |
|---|---|
| Power Requirements | a.c. 220 – 230 Volts, 50/60 Hz |
| Power Consumption | 530 W |
| Dimensions | 420 (W) X 125 (H) X 360 (D) mm |
| Weight (without package) | 8.1 kg |

### Furnished Parts

| | |
|---|---|
| FM T-type Antenna | 1 |
| AM Loop Antenna | 1 |
| Operating Instructions | 1 |
| Remote control unit | 1 |
| AAA/R03 Dry cell battery | 2 |
| Power cord | 1 |

***NOTE:***
*Specifications and design subject to possible modification without notice, due to improvements.*

** Measured By Audio Spectrum Analyzer.*